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ON-SITE AIR BAG INVESTIGATION

CASE NO. - 94-18
FLEET - PRIVATE VEHICLE
LOCATION - [REDACTED] NEBRASKA
ACCIDENT DATE - [REDACTED] 1994

Submitted By:

[REDACTED]
Senior Staff Associate

[REDACTED] 1995

Contract Number: DTNH22-94-D-17058

Prepared for:

U.S. Department of Transportation
National Highway Traffic Safety Administration
National Center for Statistics and Analysis
Washington, D.C. 20590

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points be coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

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16. Abstract <p>This report covers an on-site investigation of an air bag deployment crash that involved a 1992 Ford Taurus LX, 4-door sedan. The Taurus was traveling northward on a downgrade near the center of a two-lane, undivided, gravel, county roadway. The Taurus (case vehicle) steered right into its north-bound lane to avoid a noncontact southbound vehicle. After passing the noncontact vehicle, the case vehicle began to "fish-tail" then subsequently rotated clockwise. The case vehicle continued its clockwise rotation as it travelled north-northeastward and impacted a guardrail on the east side of the road with its front end. The case vehicle's driver-side air bag did not deploy because the Longitudinal Delta V was below the deployment threshold. After impacting the guardrail, the case vehicle continued to rotate clockwise and move northward down the slope before momentarily coming to rest on the bridge facing south-southeast (the case had rotated approximately 175 degrees clockwise). Because the driver was apparently unconscious and the transmission was still engaged, the case vehicle began moving south-southeast and departed the east side of the road going down a steep embankment. As the case vehicle travelled down the incline, it struck a bush, a small tree, and impacted the ground with its undercarriage prior to coming to rest at the bottom facing east-southeast. The ground impact caused the case vehicle's driver side supplemental restraint (air bag) to deploy. The case vehicle's driver (62 year-old female) was also restrained by the available, active, three-point, lap and shoulder belt and sustained, according to her medical records, severe brain injuries including a concussion (AIS-5), multiple fractures, right eye injuries, and multiple soft tissue injuries.</p>					
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TRC/IU ON-SITE AIR BAG INVESTIGATION

TRC/IU CASE NO. 94-18

FLEET - PRIVATE VEHICLE
LOCATION [REDACTED], NEBRASKA

SUMMARY

This report concerns a motor vehicle crash involving an air bag equipped 1992 Ford Taurus LX, four-door sedan occurring on [REDACTED] 1994 at 11:40 a.m., near [REDACTED] Nebraska on a county road. This crash is of special interest because it was alleged that the driver-side air bag had caused severe head injuries to the driver of the case vehicle.

The Taurus was traveling northward on a downgrade (7 percent) near the center of a two-lane, undivided, gravel roadway. The Taurus steered right into its northbound lane to avoid a noncontact southbound vehicle. After passing the noncontact vehicle, the case vehicle began to "fish-tail" then subsequently rotate clockwise. The case vehicle continued its clockwise rotation as it travelled north-northeastward and impacted a guardrail. The guardrail was located on the east side of the road and was protecting a bridge. After impacting the guardrail, the case vehicle continued to rotate clockwise and move northward down the slope (6 percent) before momentarily coming to rest on the bridge facing south-southeast (the Taurus had rotated approximately 175 degrees clockwise). Because the driver was apparently unconscious and the transmission was still engaged, the Taurus began moving south-southeast up the slope approximately 30 meters (98 feet) departing the east side of the road going down a steep (43 percent grade) embankment. As the Taurus travelled down the incline, it struck a bush, a small tree, and the ground prior to coming to rest at the bottom facing east-southeast.

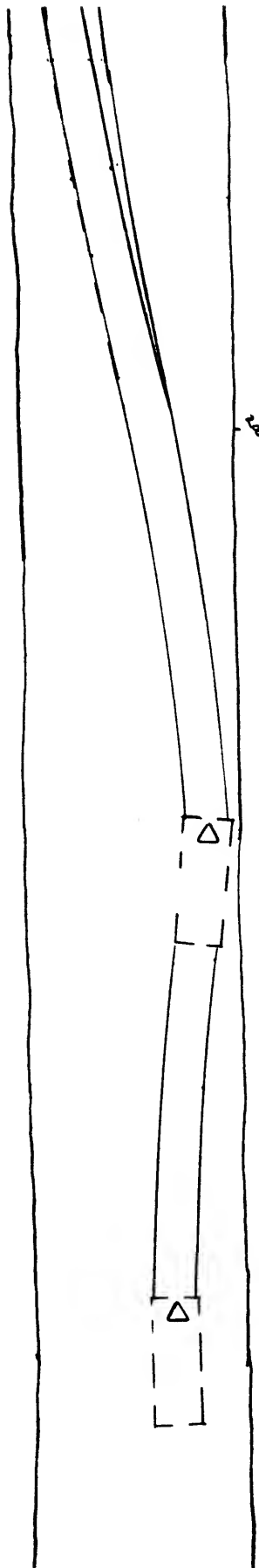
Initially, the front of the Taurus impacted the guardrail. In the subsequent impacts the right, left, and undercarriage of the Taurus impacted, respectively, a bush, a small tree, and the ground. CDCs for the Taurus were determined to be (in sequential order): 10-FDEW-1, 12-RYES-1, 12-LZMS-1, and 12-UFDW-2. None of the impacts meet the criteria for using the current reconstruction programs. The guardrail is a yielding object; the bush and tree are also yielding as well as not achieving a common velocity with the Taurus, and there is no current method to measure the crush through the undercarriage. Since it was initially alleged that the guardrail deployed the air bag causing severe brain injuries, the CRASHPC and EDCRASH reconstruction programs, damage only algorithm, were used on the frontal guardrail impact (second highest severity) to the Taurus to obtain the barrier equivalent Delta Vs. The Total, Longitudinal, and Lateral Delta Vs are respectively: 13 k.p.h. (8 m.p.h.), -8 k.p.h. (-5 m.p.h.), and +10 k.p.h. (+6 m.p.h.). The Taurus's driver-side air bag did not deploy as a result of this frontal impact because the Longitudinal Delta V sustained by the vehicle was below the deployment threshold.

The 1992 Ford Taurus was equipped with a driver supplemental restraint system (air bag) which deployed as a result of the undercarriage impact. The driver of the vehicle (62 year-old female) was also restrained by the available, active, three-point lap and shoulder belt. She sustained, according to her medical records, severe injuries which included: brain injuries [i.e., a concussion (AIS-5), right cerebral contusion, and intraventricular and subarachnoid hemorrhages], multiple fractures (i.e., right maxilla, nose, and left wrist), right eye injuries (i.e., a partial retinal detachment, hyphema, and vitreous hemorrhage), and multiple soft tissue injuries. The driver of the Taurus was listed on the Police Accident Report as sustaining a "B" (nonincapacitating-evident) injury as a result of this crash.

Scale: 1 in = 20 ft
(prior to reduction @ 94%)

Road Surface: Gravel
Road Condition: Dry
Slope, pre-impact = 7 %
Slope, at impact = 6 %

Case vehicle swerves
toward the right and
then back toward
the left. Case vehicle
begins to rotate
clockwise.

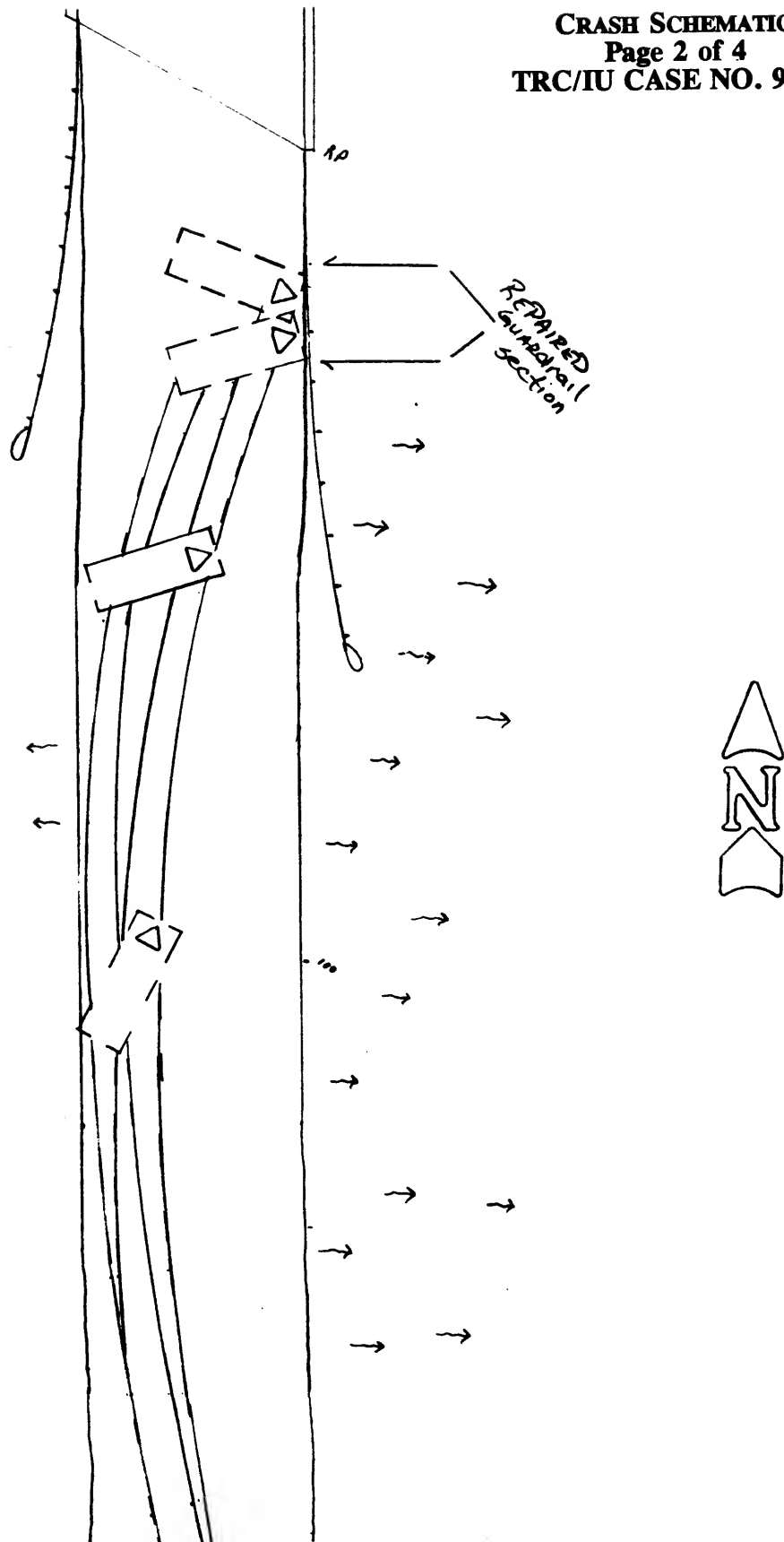


NOTE: No physical evidence was found at the scene during the inspection. This crash occurred in [REDACTED] and the scene was inspected in [REDACTED]. In addition, the scene was snow covered at the time of inspection. Therefore, this scene diagram is compiled from the measurements taken during the scene inspection, the Police measurements, and the measurements taken by the reconstructionist hired by the Case Vehicle Driver's attorney. The scale used is consistent with the Police measurements.

Scale: 1 in = 20 ft
(prior to reduction @ 94%)

Road Surface: Gravel
Road Condition: Dry
Slope, pre-impact = 7 %
Slope, at impact = 6 %

Case vehicle continues
to rotate clockwise
and impacts a guard-
rail located on the
east roadside which
protects the approach
to a bridge.



NOTE: No physical evidence was found at the scene during the inspection. This crash occurred in [REDACTED] and the scene was inspected in [REDACTED]. In addition, the scene was snow covered at the time of inspection. Therefore, this scene diagram is compiled from the measurements taken during the scene inspection, the Police measurements, and the measurements taken by the reconstructionist hired by the Case Vehicle Driver's attorney. The scale used is consistent with the Police measurements.

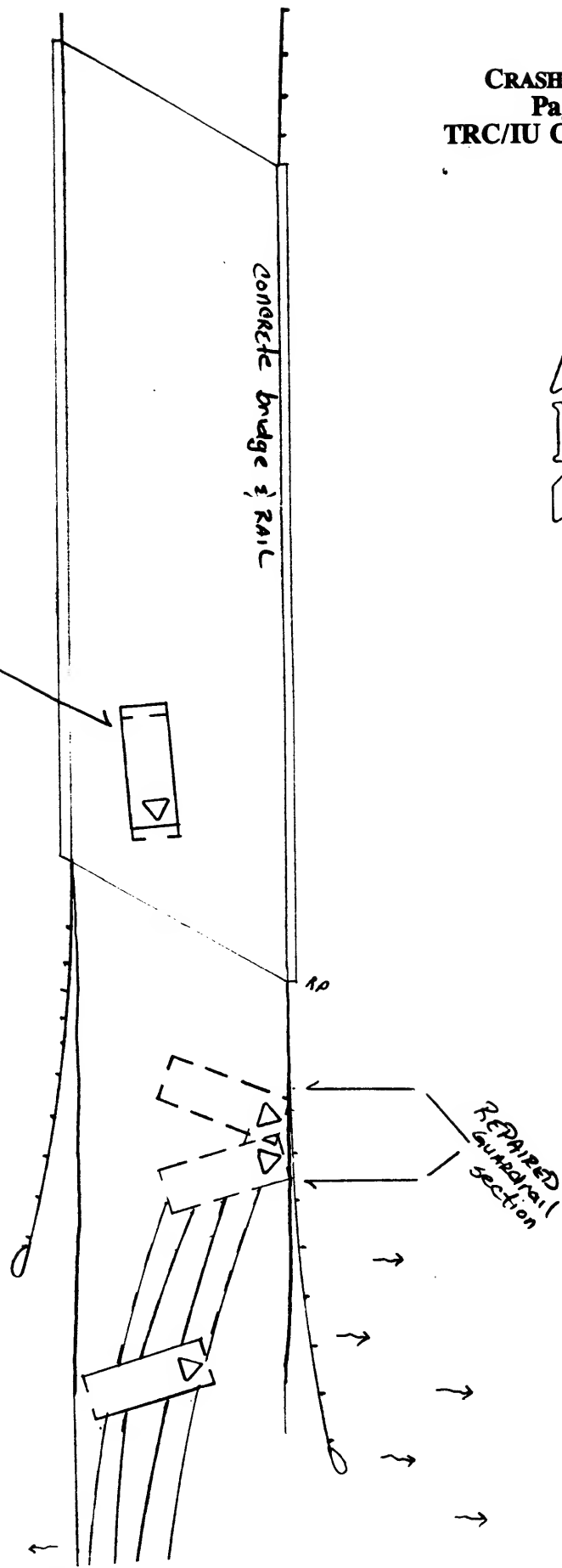
Scale: 1 in = 20 ft
(prior to reduction @ 94%)

Road Surface: Gravel
Road Condition: Dry
Slope, at impact = 6 %

After impacting the guardrail, the case vehicle continues to rotate clockwise and comes to a temporary rest on the bridge, facing south, with the engine running, and the transmission still engaged.

Approx FRP
From 1st
Prior to impact
Forward to 2nd
Impact

Concrete bridge & RAIL



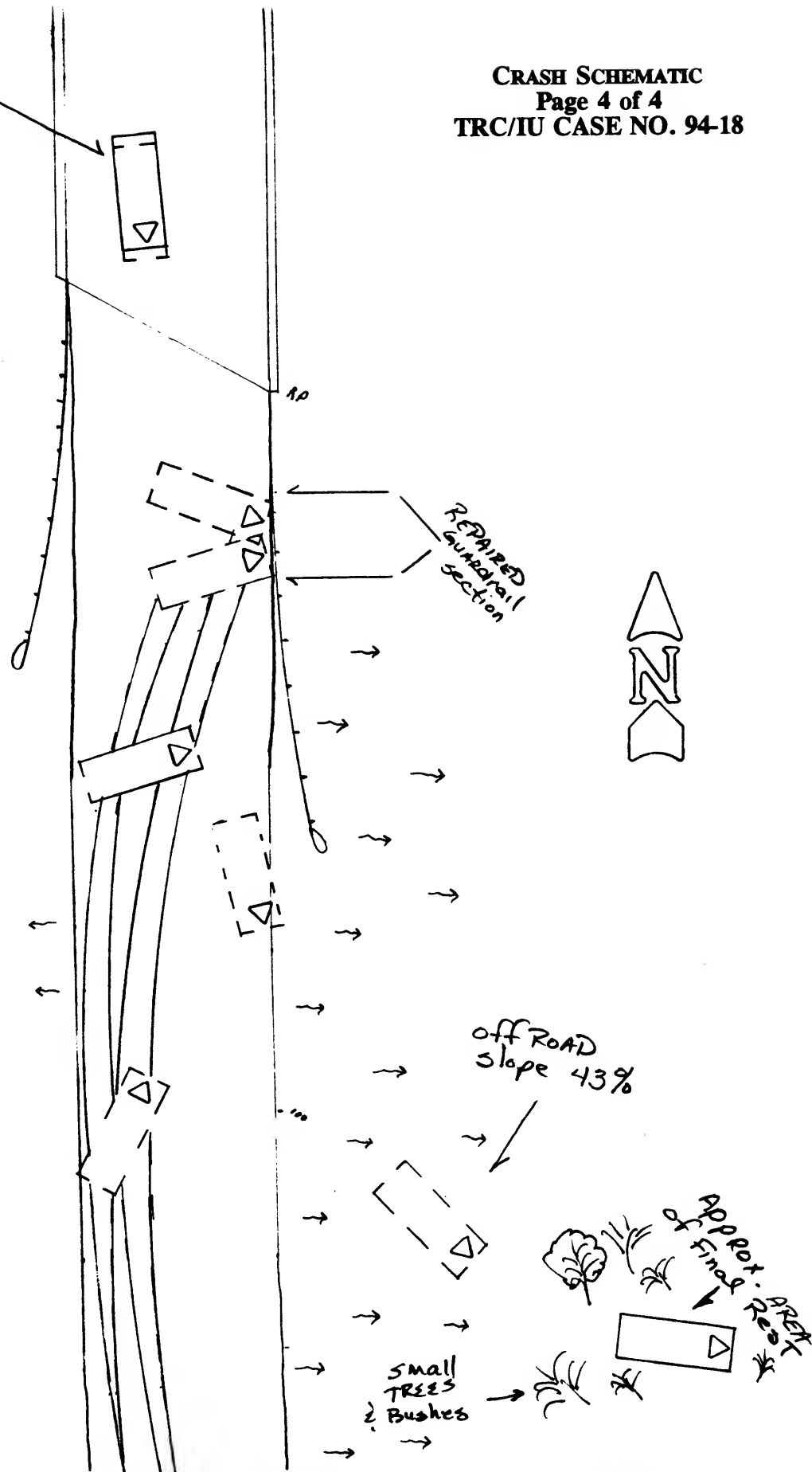
NOTE: No physical evidence was found at the scene during the inspection. This crash occurred in [REDACTED] and the scene was inspected in [REDACTED]. In addition, the scene was snow covered at the time of inspection. Therefore, this scene diagram is compiled from the measurements taken during the scene inspection, the Police measurements, and the measurements taken by the reconstructionist hired by the Case Vehicle Driver's attorney. The scale used is consistent with the Police measurements.

Scale: 1 in = 20 ft
(prior to reduction @ 94%)

Road Surface: Gravel
Road Condition: Dry
Slope, at impact = 6 %
Slope, off road = 43 %

Case vehicle moves south-southeastward, departs the east side of the road, and travels down a steep grade before coming to rest.

NOTE: No physical evidence was found at the scene during the inspection. This crash occurred in [REDACTED] and the scene was inspected in [REDACTED]. In addition, the scene was snow covered at the time of inspection. Therefore, this scene diagram is compiled from the measurements taken during the scene inspection, the Police measurements, and the measurements taken by the reconstructionist hired by the Case Vehicle Driver's attorney. The scale used is consistent with the Police measurements.



TRC/IU ON-SITE AIR BAG INVESTIGATION

TRC/IU CASE NO. 94-18

FLEET - PRIVATE VEHICLE
LOCATION - [REDACTED] NEBRASKA

ACCIDENT DATA

Location/Street:	County Road
City/Township:	[REDACTED] County, near [REDACTED], Nebraska
Area/Type:	Rural, agricultural
Accident Date/Time:	[REDACTED] 1994, @ [REDACTED] a.m.
Investigating Police Agency:	[REDACTED] County Sheriff Department
Accident Type:	Car - ran-off-road
Occupant Injury Severity (air bag vehicle):	Concussion (AIS-5)

AMBIENT CONDITIONS¹

Light Conditions:	Daylight
Weather Condition:	Cloudy
Precipitation:	None
Road Surface:	Dry ¹

ROADWAY

Case Vehicle

Location:	County road
Number of Travel Lanes:	2-lanes, undivided
Width:	3.0 meters (10.0 feet)
Surface Type:	Gravel
Median:	None
Shoulders:	None: no improvements noted

¹ According to the Police Accident Report, the road surface was dry; however, SELECTED PHOTOGRAPHS #03, #07, #10, and #22 show the gravel road surface as wet and the bridge pavement as dry.

ROADWAY (CONTINUED)

Case Vehicle

Vertical alignment: 6.25 %, negative to north
Horizontal alignment: Straight, normal crown
Estimated Coefficient of Friction: .55 prior to bridge; .70 on bridge
Traffic Density: Light

TRAFFIC CONTROLS

Case Vehicle

Signals: None
Signs: None
Markings: Two Type 3 Object Markers: vertical, rectangular, black and yellow markers at beginning of bridge
Speed Limit: 80 k.p.h. (50 m.p.h.)

VEHICLES

Case Vehicle

Year: 1992
Make: Ford
Model: Taurus LX
Body Type: Four-door sedan
V.I.N. 1FACP5344NG-----
Color: Blue
Mileage: 62,068 kilometers (38,567 miles)
Engine: 3.0 liters, V6, SEFI
Transmission: 4-speed automatic with overdrive
Steering: Power-assisted, rack-and-pinion
Brakes: Power-assisted, front disc, rear drum
Padding: Steering wheel and hub, sunvisors, dash, "A"-pillars, side door surfaces

VEHICLES (CONTINUED)

Case Vehicle

Active Restraints:	3-point, manual, lap and shoulder belts in front and rear outboard seating positions; lap belt only at rear center position
Passive Restraints:	Factory installed driver supplemental restraint system (air bag)
Defects:	None
Fleet:	Private vehicle
Tow status:	Towed, unknown if due to damage

VEHICLE DAMAGE

EXTERIORCase Vehicle1st Nondeployment Impact

Event number:	One
Object Struck:	Guardrail
Damage location	
Damaged Plane:	Front
Vertical Location	
On Plane:	Bumper and above
Direct Begins:	Right bumper corner
Length Direct:	139 cm (55.1 in)
Field L:	140 cm (55.1 in)
C ₁ :	6 cm (2.4 in)
C ₂ :	6 cm (2.4 in)
C ₃ :	6 cm (2.4 in)
C ₄ :	6 cm (2.4 in)
C ₅ :	6 cm (2.4 in)
C ₆ :	7 cm (2.8 in)
D:	0 cm (0.0 in)
Maximum Crush:	2 cm (0.8 in)
Location:	C ₆
CDC:	10-FDEW-1
Damaged Components:	Front bumper and grille

2nd Nondeployment Impact

Event number:	Two
---------------	-----

VEHICLE DAMAGE (CONTINUED)

EXTERIOR (CONTINUED)Case Vehicle2nd Nondeployment Impact (Continued)

Object Struck:	Bush
Damage location	
Damaged Plane:	Right
Vertical Location	
On Plane:	Beltline to sill
Direct Begins:	Not applicable
Length Direct:	Not applicable
Field L:	Not applicable
C ₁ :	Not applicable
C ₂ :	Not applicable
C ₃ :	Not applicable
C ₄ :	Not applicable
C ₅ :	Not applicable
C ₆ :	Not applicable
D:	Not applicable
Maximum Crush:	Not applicable
Location:	Not applicable
CDC:	12-RYES-1
Damaged Components:	Right front mud-flap and right outside rearview mirror

3rd Nondeployment Impact

Event number:	Three
Object Struck:	Small tree
Damage location	
Damaged Plane:	Left
Vertical Location	
On Plane:	Beltline to above sill
Direct Begins:	Not applicable
Length Direct:	Not applicable
Field L:	Not applicable
C ₁ :	Not applicable
C ₂ :	Not applicable
C ₃ :	Not applicable
C ₄ :	Not applicable
C ₅ :	Not applicable
C ₆ :	Not applicable
D:	Not applicable
Maximum Crush:	Not applicable
Location:	Not applicable

VEHICLE DAMAGE (CONTINUED)

EXTERIOR (CONTINUED)Case Vehicle3rd Nondeployment Impact (Continued)

CDC: 12-LZMS-1

Damaged Components: Left outside rearview mirror, left rear door, and left quarter panel

Deployment Impact

Event number: Four

Object Struck: Ground

Damage location

Damaged Plane: Undercarriage

Lateral Location

On Plane: Distributed across the front of the undercarriage area

Direct Begins: Not applicable

Length Direct: Not applicable

Field L: Not applicable

C₁: Not applicable

C₂: Not applicable

C₃: Not applicable

C₄: Not applicable

C₅: Not applicable

C₆: Not applicable

D: Not applicable

Maximum Crush: Not applicable

Location: Not applicable

CDC: 12-UFDW-2

Damaged Components: Air dam; see **SELECTED PHOTOGRAPHS #25, #39**, and specifically **#40** which shows the area of maximum damage

INTERIOR

Damaged Components: Steering wheel and air bag module

Other Evidence of Occupant Contact: None

Manual Restraint System Failures: None

Seat Performance Failures: None

REPAIR**Case Vehicle**

Cost Estimate:

Unknown, vehicle just now being repaired

VEHICLE VELOCITY ESTIMATES^{2,3}**Second Highest Delta "V"****Case Vehicle³**

Reconstruction Program:

CRASH3PC and EDCRASH

Program Algorithm:

Damage only

Travel Speed²:

48 k.p.h. (30 m.p.h.)

Total Delta "V":

13 k.p.h. (8 m.p.h.)

Longitudinal Delta "V":

-8 k.p.h. (-5 m.p.h.)

Lateral Delta "V":

+10 k.p.h. (+6 m.p.h.)

COLLISION SEQUENCE

Pre-Crash: According to the Police Accident Report (**Appendix A**) and the eyewitness (**Appendix B**), the case vehicle (Taurus) was traveling northward on a down-grade (7 percent) near the center of a two-lane, undivided, gravel, county roadway and was attempting to continue in its direction of travel. According to the eyewitness, the case vehicle steered right, into its northbound lane, to avoid the on-coming, noncontact southbound vehicle. After passing the noncontact vehicle, the case vehicle began to "fish-tail" then subsequently rotated clockwise. The case vehicle continued its clockwise rotation as it travelled north-northeastward toward a guardrail which was located on the east side of the road and was protecting a bridge. Based on the eyewitness's statement, the driver of the case vehicle most likely steered right to pass the eyewitness's on-coming, southbound vehicle, steered left to correct the initial rightward steering maneuver, and then steered right to correct the leftward steering maneuver. Because the case vehicle driver has no recollection of the crash events, it is unclear what if any

² Travel speed is based on two factors. First, the case vehicle driver indicated in her interview that she was traveling 48 to 64 k.p.h. (30 to 40 m.p.h.) prior to approaching the bridge. Second, this contractor is of the opinion that she most likely, at least, let up on her accelerator, thus slowing the case vehicle prior to impact.

³ The case vehicle sustained two frontal impacts, one of which was "distinct" (i.e., the guardrail). Both frontal impacts involved yielding objects. According to 1994 NASS CDS protocol, the delta Vs are not determinable in this situation, and any results are not codeable. The Delta Vs presented above were taken from the reconstruction program results presented in APPENDIX C and show the equivalent barrier Delta Vs resulting from the totality of the frontal crush. The resultant Longitudinal Delta V is most likely below the deployment threshold. The conclusion reached from this approach is that the case vehicle's frontal impact with the guardrail did not deploy the air bag.

The impact which this contractor believes deployed the air bag involved the case vehicle striking the ground as it went down the embankment (i.e., a nonhorizontal impact through the undercarriage).

COLLISION SEQUENCE (CONTINUED)

Pre-Crash: (Continued)

avoidance maneuvers were attempted as the vehicle rotated out-of-control. The case vehicle continued to rotate in a clockwise yaw prior to impact. The crash occurred on the east roadside when the case vehicle impacted the guardrail.

Crash: According to the Police Accident Report (see **SELECTED PHOTOGRAPHS #10 and #11**), after the case vehicle impacted the guardrail it continued to rotate clockwise and moved northward down the slope (6 percent) before momentarily coming to rest on the bridge facing south-southeast (i.e., the case had rotated approximately 175 degrees clockwise). Because the driver was apparently unconscious⁴ and the transmission was still engaged, the case vehicle, according to the eyewitness and the physical scene evidence collected by the Police, began moving south-southeast up the slope and departed the east side of the road going down a steep (43 percent grade) embankment. As the case vehicle travelled down the incline, based on our vehicle inspection, it sustained three additional impacts before coming to rest at the bottom facing east-southeast.

Initially, the front of the Taurus impacted the guardrail. The driver's air bag did not deploy as a result of the frontal impact to the guardrail because the Longitudinal Delta V sustained by the vehicle was below the deployment threshold. In the subsequent impacts the right, left, and undercarriage of the Taurus impacted, respectively, a bush, a small tree, and the ground. The ground impact caused the case vehicle's driver side supplemental restraint (air bag) to deploy.

Post-Crash:

Occupants: According to the witness's statement (see **Appendix B**) the driver of the case vehicle remained inside the vehicle at final rest. She was unconscious, according to the emergency medical technician's report, and was unable because of her injuries to exit the case vehicle. According to the eyewitness's account and the inspection of the case vehicle, it was equipped with a driver supplemental restraint system (air bag) which deployed during the crash sequence. The case vehicle's driver was also restrained by the available, active, three-point, lap and shoulder belt.

⁴ It is this contractor's opinion that the case vehicle driver was knocked unconscious as a result of the guardrail impact. This opinion is based on: (1) the bent steering wheel rim, (2) the open fracture to the case vehicle driver's right facial area, (3) the severe brain injuries to the case vehicle driver which this contractor attributes to the head contact with the steering wheel rim, and (4) the eyewitness's statement that he observed the case vehicle moving slowly southward towards the east roadside after the guardrail impact which indicates that the case vehicle driver was not able to simply apply the brake and stop the vehicle.

COLLISION SEQUENCE (CONTINUED)

Post-Crash: (Continued)

Police: The investigating police agency was notified of the accident within four minutes and arrived on-scene within ten minutes. Traffic control procedures were established and emergency medical and towing services were called to assist.

Rescue: According to the Police Accident Report, the eyewitness, and the driver's medical records, she was transported by ambulance to a medical facility where, according to her medical records, she was hospitalized. Furthermore, according to her medical records, she sustained severe brain injuries which included: a concussion, right cerebral contusion, and intraventricular and subarachnoid hemorrhages. In addition to her brain injuries, she had multiple fractures (i.e., right maxilla, nose, and left wrist), right eye injuries (i.e., a partial retinal detachment, hyphema, and vitreous hemorrhage), and multiple soft tissue injuries.

Removal: First, the case vehicle was towed from its final rest position at the bottom of the embankment up onto the roadway. Following the police investigation, the case vehicle was towed from the scene because the driver was incapacitated.


HUMAN FACTORS/OCCUPANT DATA

Case Vehicle

Driver:	62 year-old female
Height:	168 centimeters (66 inches)
Weight:	50 kilograms (110 pounds)
Occupation:	Restaurant owner and waitress
Active Restraint System/Usage:	3-point lap and shoulder/used
Usage Source:	Eyewitness and vehicle inspection
Eye glasses/contacts:	Contacts
Vehicle Familiarity:	Very familiar
Route Familiarity:	Daily
Trip Plan:	Home to relative (i.e., picking up grandchildren)
Manner of Leaving Scene:	Ambulance
Type of Medical Treatment:	Hospitalized

DRIVER INJURIES

<u>Description of Injury</u>	<u>A.I.S.</u>	<u>Source of Data</u>	<u>Injury Mechanism</u>	<u>Certainty</u>
Concussion ⁵ with loss of consciousness greater than 24 hours	160214.5,0	2	Steering rim	{Probable}
Cerebral contusion, right, involving right frontal, parietal, and occipital lobes--fairly massive ⁶	140614.3,1	2	Steering rim	{Probable}
Intraventricular hemorrhage ⁷	140678.4,1	2	Steering rim	{Probable}
Subarachnoid hemorrhage, location unspecified, probably on right	140684.3,1	2	Steering rim	{Probable}
Fracture, open ⁸ , right maxilla	250800.2,1	2	Steering hub and/or spokes	{Certain}
Fracture, comminuted, nose	251004.2,4	2	Steering hub and/or spokes	{Certain}

⁵ The following pertinent medical terms were taken from  ILLUSTRATED MEDICAL DICTIONARY, 27th Edition

aphasic -- pertaining to or affected with aphasia

aphasia -- defect or loss of the power of expression by speech, writing, or signs, or of the power of expression by speech, writing, or signs, or of comprehending spoken or written language, due to injury or disease of the brain centers

dysphagia -- difficulty in swallowing

perseveration -- persistent repetition of the same verbal or motor response to varied stimuli; continuance of an activity after cessation of the causative stimulus

The case vehicle driver was unconscious on arrival at the scene of the emergency medical personnel with nonpurposeful movements. In the emergency room she was combative, but responded to painful stimuli. In addition, her right eye was dilated, both pupils were nonreactive, and both eyes were deviated to the right.

During our interview with the driver of the case vehicle, she expressed her frustration with her memory loss and the fact that her doctors cannot give her any prognosis regarding her regaining her memory. According to the driver, the time period of her memory loss extends approximately ten years (i.e., from a short time after the death of her first husband to her hospitalization). Because of her memory loss, she is afraid to ask friends how their spouses are for fear that they have died or divorced and she does not want to hurt anyone's feelings. She indicates that she cannot even remember marrying her present husband, and she becomes easily upset when she cannot remember things that she feels she should. According to her current husband, she has become a very private person compared to an active, outgoing, gregarious person she was prior to the crash.

⁶ Conflicting evidence is present regarding the case vehicle driver's right cerebral contusion. On the one hand, the contusions which were present in multiple lobes are described as "*fairly massive*"; however, no evidence of significant midline shifting was reported. Because the latter evidence is more specific than the former, the lower A.I.S. was assigned.

⁷ The following definition was taken from a standard dictionary.
Effaced -- to rub out, erase, or obliterate (outlines, traces, inscriptions)

⁸ There was a six centimeter laceration on the right cheek extending to the right lip. The cheek and lip lacerations were full-thickness, the cheek laceration extended down to the maxilla.

DRIVER INJURIES (CONTINUED)⁹

<u>Description of Injury</u>	<u>A.I.S.</u>	<u>Source of Data</u>	<u>Injury Mechanism</u>	<u>Certainty</u>
Fracture left scaphoid {navicular}	752002.2,2	2	Steering rim	{Probable}
Retinal detachment, partial, right eye	241002.2,1	2	Air bag	{Probable}
HypHEMA right eye	240604.1,1	2	Air bag	{Probable}
Vitreous hemorrhage, right eye	241699.1,1	2	Air bag	{Probable}
Hematoma right eye	297402.1,1	2	Steering hub and/or spokes	{Probable}
Hematoma left eye	297402.1,2	2	Steering hub and/or spokes	{Probable}
Hematoma right forehead ⁹	290402.1,7	2	Steering rim	{Certain}
Laceration, right lip	290602.1,8	2	Steering hub and/or spokes	{Certain}
Contusion (ecchymosis), facial ⁹ , unspecified	290402.1,9	2	Steering wheel: rim, hub, and/or spokes	{Probable}
Contusion (ecchymosis) superior chest	490402.1,4	2	Steering rim	{Probable}
Contusion upper abdomen	590402.1,7	6	Torso belt	{Probable}
Contusion right shoulder	790402.1,1	6	Steering rim	{Possible}
Hematoma over left wrist	790402.1,2	3	Steering rim	{Probable}

DRIVER KINEMATICS

According to the case vehicle driver, she had both hands on the steering wheel. Other than having both hands on the steering wheel, she could not recall her posture at any of her pre-crash or crash travel locations. Based on the physical evidence captured on the police on-scene photographs and noted by the Accident Reconstructionist hired by the family's attorney, the case vehicle was in a clockwise yaw immediately prior to striking the guardrail. The case vehicle driver has no recollection regarding what, if any, avoidance maneuvers she undertook in response to her vehicle's clockwise rotation. Because of the yaw, the case vehicle's driver may have been leaning slightly to her right. In addition, based on the damage to the case vehicle's steering wheel (see **SELECTED PHOTOGRAPHS #45, #47, and #53**) and the direction of principal force acting on the vehicle, the driver may have been steering leftward trying to counteract the clockwise rotation.

⁹ Several clinical signs indicate the possible presence of a basilar skull fracture [i.e., blood in the right ear canal, cerebrospinal fluid leaking from the right ear, positive battle sign on the right, and bilateral periorbital hematomas (i.e., racoon's eyes)]; however, no such diagnosis was made.

DRIVER KINEMATICS (CONTINUED)

Based on occupant kinematic principles, the impact with the guardrail (10 o'clock PDOF) most likely caused the driver to move forward and leftward loading the torso portion of her active, three-point, lap and shoulder belt. As the driver loaded the torso portion, she most likely twisted the upper right half of her body to the left causing her nose and right side of her face to move toward the top left side of a normally centered steering wheel. However, the rim damage evidence¹⁰ supports the notion that the case vehicle's driver was steering leftward¹¹ trying to counteract the clockwise rotation. In any case, the driver's facial collision occurred with the top right portion of the steering wheel and caused, in all likelihood, the compound right maxilla fracture and comminuted nose fracture and, most likely, her severe brain injuries.

After the endswiping type impact with the guardrail, the case vehicle continued to rotate clockwise. The case vehicle's driver most likely moved leftward toward the left front door with her movement limited by her torso belt and the door. The case vehicle's northerly movement came to a temporary rest with the case vehicle heading southeast (i.e., having rotated approximately 175 degrees from its original direction of travel). At this point the driver had most likely moved rearward into her seatback where she stayed, possibly leaning against the door, as the case vehicle, which was still in gear, proceeded south, back up the hill (+6%), a distance of approximately 30 meters (98 feet) prior to departing the east edge of the roadway. After departing the road, the case vehicle went down a steep embankment (i.e., incline was approximately -43%).

Once again based on principles of occupant kinematics, the case vehicle driver, who in our opinion was unconscious from the guardrail impact, moved forward as her vehicle went down the steep grade and loaded¹² the torso portion of her belt prior to the case vehicle's primary, undercarriage impact to the ground. The exact position of the driver at this point is unknown, but she was mostly leaning forward and maybe leftward against her torso belt. The impact with the ground not only deployed the driver's air bag but most likely accelerated the driver's forward movement and pitched the slumping driver upwards directly into the deploying air bag. It is entirely possible, given the driver's suspected state of consciousness, that the case vehicle driver was leaning over the air bag when it deployed. The contact with the air bag most likely caused the driver's right eye injuries and may have contributed to the seriousness of her head injuries. Due to the use of the driver's available restraints and her slumping posture, the windshield and windshield header area were not contacted. The case vehicle's restraints (i.e., the air bag and belts) appear to have performed as designed given the relatively low energy severity of this crash.

The case vehicle driver was most likely driven rearward and probably leftward as a result of the air bag's deployment. According to the eyewitness, who is also an EMT, the driver was facing outward towards the the driver's window upon his reaching the case vehicle at final

¹⁰ The steering wheel rim was deformed approximately 2.5 centimeters (1 inch), and the deformation occurred to the top right side.

¹¹ A leftward steer input would rotate the top right portion of the steering wheel rim to the left.

¹² This loading most likely resulted from a combination of the steep incline and the rough terrain, as well as the case vehicle's impacts to a thick bush and the limbs of a small tree.

DRIVER KINEMATICS (CONTINUED)

rest. This posture may explain the large amount of blood on the driver's door, torso belt, and outward edge of the driver's seat. The eyewitness reported that he went to call for help, and upon returning to the case vehicle, he indicated that the driver was now facing straight ahead and slumped over a bit, but held up by her torso belt. The witness reported that the case vehicle's driver was wearing her lap and shoulder belt in the proper manner. In this contractor's opinion, this sequence of events (i.e., the case vehicle's driver striking the steering wheel with her face as a result of the guardrail impact and causing the open fracture followed by the case vehicle driver being slumped over on or near the steering wheel when the air bag deployed in the primary impact) explains why the blood was splattered on the air bag and the driver's side dashboard.

AIR BAG SYSTEM

DRIVER AIR BAG

Deployment Threshold:	13 to 23 k.p.h. (8 to 14 m.p.h.)
Airbag Diameter (seam-to-seam, deflated):	65 centimeters (25.6 inches)
Number of Vent Holes:	Two
Vent Hole Diameter:	2.2 centimeters (0.9 inches)
Vent Hole Clock Positions:	Eleven and one o'clock
Generant Residue:	None detected during vehicle inspection

ACCIDENT COLLISION MEASUREMENT TABLE

ACCIDENT COLLISION MEASUREMENT TABLE

**NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM**

Primary Sampling Unit Number 10

Case Number—Stratum 9418

ACCIDENT COLLISION DIAGRAM		
<p style="text-align: center;">LEVEL I PHYSICAL EVIDENCE ABSENT</p> <p>To be accomplished when there is no physical evidence present at the scene:</p> <ul style="list-style-type: none"> • approximate vehicle orientation at impact and final rest • applicable road/roadway delineation (e.g., curbs/edge lines, lane markings, median markings, pavement markings, etc.) • applicable traffic controls (e.g., speed limit) • north arrow placed on diagram • sketch required 	<p style="text-align: center;">LEVEL II (Cont'd) physical evidence is present:</p> <ul style="list-style-type: none"> • document reference point and reference line relative to physical features present at the scene • scaled documentation of all accident induced physical evidence • scaled documentation of all roadside objects contacted • roadway surface type and condition of applicable roadways • grade measurements for all applicable roadways and at location of rollover initiation • scaled representations of the vehicle(s) at pre-impact, impact, and final rest based upon either: <div style="margin-left: 20px;"> a) physical evidence, or b) reconstructed accident dynamics </div> 	<p style="text-align: center;">CRASH DATA</p> <div style="display: flex; justify-content: space-between; margin-bottom: 10px;"> VEH. #1 VEH. #2 VEH. #3 </div> <p>Heading Angle <u>0</u> _____</p> <p>Surface Type <u>GRAVEL</u> _____</p> <p>Surface Condition <u>DRY</u> _____</p> <p>Grade (v/h) Measurement <u>3/48</u> <u>20.5/48</u></p> <p style="text-align: center;">(between impact and final rest)</p> <div style="display: flex; justify-content: space-around;"> <u>on</u> Bridge <u>off</u> ROAD </div> <p>Grade (v/h) Measurement (at location of rollover initiation) <u>N/A</u> _____</p>
<p style="text-align: center;">LEVEL II PHYSICAL EVIDENCE PRESENT</p> <p>In addition to the level I tasks noted above, the following must be accomplished when</p>		

Reference Point: South edge of
East bridge rail

[illegible]

[illegible]

Appendix A:

POLICE ACCIDENT REPORT

INVESTIGATOR'S MOTOR VEHICLE ACCIDENT REPORT

Case No. [REDACTED]

Sheet 1 of 1

TOTAL NUMBER OF VEHICLES INVOLVED 1	DATE OF ACCIDENT	MO. DAY YR.	DAY OF ACCIDENT	Sun. M. T. W. T. F. Sat.	TIME OF ACCIDENT	MILITARY TIME	POLICE NOTIFIED	FOR STATE USE ONLY
	PLACE OF ACCIDENT	COUNTY	CITY				POLICE ARRIVED	
	ROAD ON WHICH ACCIDENT OCCURRED	STREET OR HIGHWAY NO. (If No Highway Number, Identify By Name)				ONE-WAY STREET	POSTED SPEED LIMIT	
	DISTANCE FROM MILEPOST	FEET	N S E W	OF MILEPOST	HIGHWAY NO.	PRIVATE PROPERTY	Dist.	
IF AT INTERSECTION				IF NOT AT INTERSECTION				
NAME OF INTERSECTING ROADWAY				OF NEAREST STREET OR HIGHWAY, BRIDGE, RAILROAD CROSSING OR MILEPOST:				
IF ACCIDENT WAS OUTSIDE CITY LIMITS, INDICATE DISTANCE FROM NEAREST TOWN				MILES: N S E W AND MILES: N S E W OF NEAREST CITY OR TOWN				

VEHICLE NUMBER - 1

VEHICLE NUMBER - 2

DRIVER	PHONE	DRIVER	PHONE
DRIVER'S ADDRESS	CITY, STATE, ZIP	DRIVER'S ADDRESS	CITY, STATE, ZIP
DRIVER'S LICENSE	STATE NUMBER	DATE OF BIRTH	SEX
LICENSE PLATE	YEAR	STATE	NUMBER
ESTIMATED DAMAGE			
YEAR	MAKE	MODEL	BODY STYLE
COLOR			
VEHICLE I.D. NUMBER (VIN)			
OWNER	PHONE	OWNER	PHONE
OWNER'S ADDRESS	CITY, STATE, ZIP	OWNER'S ADDRESS	CITY, STATE, ZIP
INSURANCE COMPANY			
POLICY NUMBER			
TOWED TO	TOWED BY	TOWED TO	TOWED BY


VEHICLE MOVEMENT BEFORE COLLISION	CIRCLE POINT OF IMPACT & SHADE DAMAGED AREA	DISPOSITION OF VEHICLE (Check one per vehicle)	EXTENT OF VEHICLE DEFORMITY (Check one per vehicle)	DRIVER'S CONDITION (Check one per vehicle)
VEH 1	VEH 1	VEH 1	VEH 1	VEH 1
VEH 2	VEH 2	VEH 2	VEH 2	VEH 2

RESTRAINT USE	AIR BAG	DID AIR BAG DEPLOY?	(✓) IF NO AIR BAG AVAILABLE	RESTRAINT USE	AIR BAG	DID AIR BAG DEPLOY?	(✓) IF NO AIR BAG AVAILABLE
VEH 1	VEH 1	VEH 1	VEH 1	VEH 2	VEH 2	VEH 2	VEH 2

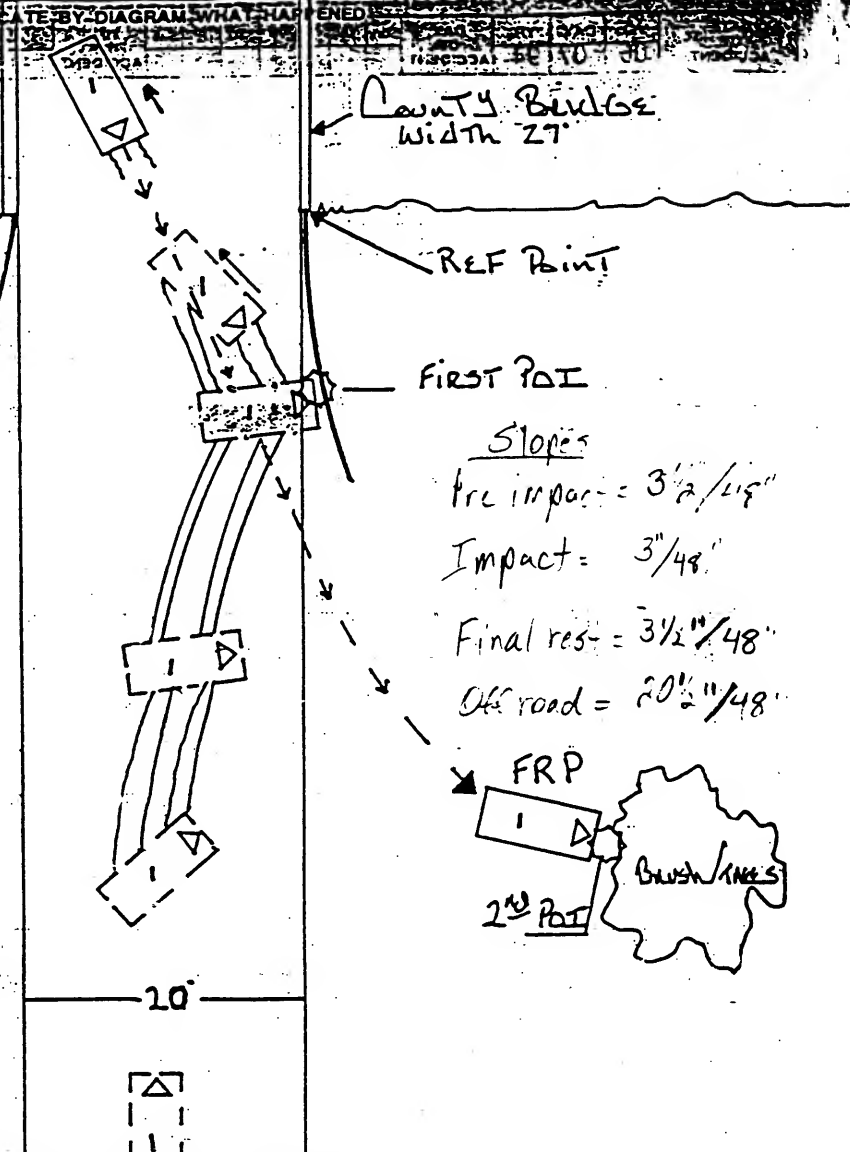
COMPLETE THIS SECTION FOR ALL INJURED PERSONS (Complete a continuation report, if more than three were injured).	RESCUE UNITS AT SCENE	DATE OF BIRTH	SEX	1	2	3	4	5
VEH # NAME ADDRESS	1. 2.							
VEH # NAME ADDRESS								
VEH # NAME ADDRESS								

THE FOLLOWING INFORMATION IS REQUIRED FOR ALL ACCIDENTS

Indicate North by Arrow



INDICATE BY DIAGRAM WHAT HAPPENED



RP	N	S	E	W
Pos	22"	1"		
Skid Length	(285')			
Post Impact Skids	(11')			
Location	12'		10'	
Entered Ditch	70'			
#1 FRP	13'	50'		

DESCRIPTION OF ACCIDENT BASED ON OFFICER'S INVESTIGATION

Vehicle #1 North bound on Roadway. DRIVER LOST CONTROL SKIDDING SIDEWAYS INTO BRIDGE GUARDRAIL. VEHICLE THEN ROLLED BACKWARDS. STOPPED. THEN ROLLED FORWARD INTO EAST DITCH. DOWNWARD INTO GROVE OF TREES!

PROPERTY	OBJECT DAMAGED:	NAME OF OWNER:	ADDRESS:	PHONE:	APPROX COST OF DAMAGE:
	Guard Rail	County			\$ 1000
WITNESSES	OBJECT DAMAGED:	NAME OF OWNER:	ADDRESS:	PHONE:	APPROX COST OF DAMAGE:
					\$
WITNESSES	NAME:	ADDRESS:	PHONE:		

WAS INVESTIGATION MADE AT SCENE?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	IS INVESTIGATION COMPLETE?	<input type="checkbox"/> YES <input type="checkbox"/> NO	DRIVER'S REPORT FORM FURNISHED TO?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	WERE PHOTOGRAPHS TAKEN?	<input type="checkbox"/> YES <input type="checkbox"/> NO	SHOULD LOCATION HAVE AN ENGINEERING STUDY?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	OFFICER NO.:	DATE OF REPORT
INVESTIGATOR'S PRINTED OR TYPED NAME:		INVESTIGATOR'S SIGNATURE:		DEPARTMENT:		TROOP:		MO:		DAY:	
				County						94	

Appendix B:

CRASH WITNESS STATEMENT

MEMORANDUM

Date: [REDACTED] 1994
From: [REDACTED]
To: File
Re: [REDACTED]

On [REDACTED] 1994, I spoke with [REDACTED]. [REDACTED] is a member of the Volunteer Fire Department at [REDACTED]. At the time of the accident, he was returning from an emergency call. He had crossed the bridge and started up the hill to the south going in a south-bound direction. [REDACTED] came over the hill and he said that she was a little bit toward the center of the road, like most people drive. While he did not view her very long, he does not believe that she was traveling particularly fast. As she started to move over to go by him, she started fish tailing. She was still fish tailing as she went past him, and he thought that she would simply regain control and that there would be no problem. Nevertheless, he watched in his rear view mirror and saw her hit the guardrail. He saw her hit it "kind of hard, but not too hard." Still he did not think things were very serious. He immediately turned around to go make sure, and as he turned he saw her coming back very slowly to the south. At this time he was still maneuvering his car to turn around, but when he looked back one last time he saw the back of [REDACTED]'s car disappearing down the slope.

Being an Emergency Medical Technician, Mr. [REDACTED] got to the car as quickly as he could. He found all the doors locked, and he could see that [REDACTED] was hurt pretty badly. However, he could see that she was breathing. He knew that he would need help, and he knew that no one would see him there, so he immediately left to go get help. No one was home at the nearest house, so he was forced to drive a quarter of a mile east down the highway. This was the [REDACTED] residence. He told them to call 911, and then Mr. [REDACTED] returned to the scene. Mr. [REDACTED] had a sledge hammer in his pickup, and he used that to break the right rear window. He picked this window to break because it was the furthest from [REDACTED]. Mr. [REDACTED] indicated that when he was at the car the first time, [REDACTED] was facing out the driver's side window. When he came back the second time, he found her looking straight ahead and slumped over a bit, but held up by the shoulder strap. She was wearing the seat belt and shoulder harness in the proper manner. He saw that [REDACTED] was breathing in a strained fashion, so he cleared the air way and applied traction to the head. This helped her breathing, but she still was not breathing normally. [REDACTED] had a gash on the right side of her nose. At about this time, the [REDACTED]'s arrived. He had them get some bandages he carries in his pickup and he was able to slow or stop the bleeding.

Mr. [REDACTED] never noticed the air bag. He did not notice it while the accident was happening, and he never noticed it while he was trying to get her out of her car.

Mr. [REDACTED] indicated that like everybody else, he was very surprised at the severity of the injuries, based on the severity of the crash. He said he was not surprised that we were looking into this.

Mr. [REDACTED] was extremely helpful and I believe that he will make himself available to anyone at any time to help on this matter.

Appendix C:

BARRIER EQUIVALENT CRASHPC PROGRAM RESULTS

AND EDCRASH PROGRAM RESULTS



U.S. Department of Transportation
National Highway Traffic Safety
Administration

CRASHPC PROGRAM SUMMARY

(All Measurements in Metric)

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Identifying Title			
<u>10</u> Primary Sampling Unit	<u>9418</u> Case No.-Stratum	<u>01</u> Accident Event Sequence No.	_____ Date (Month, day, year) of Run
CRASHPC Vehicle Identification			
Vehicle 1	<u>1992</u>	<u>FORD</u>	<u>TAURUS LX</u>
Vehicle 2	_____ Year	_____ Make	_____ Model
			NASS Veh. No. _____
GENERAL INFORMATION			
VEHICLE 1		VEHICLE 2	
Size	<u>3</u>	Size	<u>11</u>
Weight		Weight	
<u>1399</u> + <u>50</u> + <u>0</u> = <u>1449</u> kg		____ + ____ + ____ = ____ kg	
Curb Occupant(s) Cargo		Curb Occupant(s) Cargo	
CDC	<u>10FDEW1</u>	CDC	_____
PDOF (-180 to +180)	+ <u>310</u> °	PDOF (-180 to +180)	+ _____ °
Stiffness	<u>3</u>	Stiffness	_____
SCENE INFORMATION			
Rest and Impact Positions <input type="checkbox"/> No, Go To Damage Information <input type="checkbox"/> Yes			
VEHICLE 1		VEHICLE 2	
Rest Position	X _____ m Y _____ m PSI _____ °	Rest Position	X _____ m Y _____ m PSI _____ °
Impact Position	X _____ m Y _____ m PSI _____ °	Impact Position	X _____ m Y _____ m PSI _____ °
Slip Angle(-180 to +180)	_____ °	Slip Angle (-180 to +180)	_____ °
VEHICLE MOTION			
Sustained Contact <input type="checkbox"/> No <input type="checkbox"/> Yes			
VEHICLE 1		VEHICLE 2	
Vehicle Rotation <input type="checkbox"/> No <input type="checkbox"/> Yes		Vehicle Rotation <input type="checkbox"/> No <input type="checkbox"/> Yes	
Rotation Stop Before Rest <input type="checkbox"/> No <input type="checkbox"/> Yes		Rotation Stop Before Rest <input type="checkbox"/> No <input type="checkbox"/> Yes	
End of Rotation Position	X _____ m Y _____ m PSI _____ °	End of Rotation Position	X _____ m Y _____ m PSI _____ °
Curved Path <input type="checkbox"/> No <input type="checkbox"/> Yes		Curved Path <input type="checkbox"/> No <input type="checkbox"/> Yes	
Point on Path	X _____ m Y _____ m	Point on Path	X _____ m Y _____ m
Rotation Direction <input type="checkbox"/> None <input type="checkbox"/> CW <input type="checkbox"/> CCW		Rotation Direction <input type="checkbox"/> None <input type="checkbox"/> CW <input type="checkbox"/> CCW	
Rotation >360° <input type="checkbox"/> No <input type="checkbox"/> Yes		Rotation >360° <input type="checkbox"/> No <input type="checkbox"/> Yes	

FRICTION INFORMATION

Coefficient of Friction _____

Rolling Resistance Option _____

Vehicle 1 Rolling Resistance

LF _____ RF _____

LR _____ RR _____

Vehicle 2 Rolling Resistance

LF _____ RF _____

LR _____ RR _____

TRAJECTORY INFORMATION

Trajectory Data [] No [] Yes

If No, Go To Damage Information

Vehicle 1 Steer Angles

LF _____ ° RF _____ °

LR _____ ° RR _____ °

Vehicle 2 Steer Angles

LF _____ ° RF _____ °

LR _____ ° RR _____ °

Terrain Boundary [] No [] Yes

First Point

X _____ m Y _____ m

Second Point

X _____ m Y _____ m

Secondary Coefficient of Friction _____

DAMAGE INFORMATION

VEHICLE 1

Damage Length L 140 cmCrush Depths C₁ _____ cmC₂ 6 cmC₃ 6 cmC₄ 6 cmC₅ 6 cmC₆ 6.5 cmDamage Offset D \pm 0 cm

VEHICLE 2

Damage Length L _____ cm

Crush Depths C₁ _____ cmC₂ _____ cmC₃ _____ cmC₄ _____ cmC₅ _____ cmC₆ _____ cmDamage Offset D \pm _____ cmIF THIS COMMON IMPACT WAS WITH A MOTOR VEHICLE *NOT IN TRANSPORT*, FILL IN THE INFORMATION BELOW.

Model Year: _____

Make: _____

Model: _____

VIN: _____

The Weight, CDC, Scene Data and Damage Information for this vehicle should be recorded above.

Complete and ATTACH the appropriate vehicle damage sketch and dimensions to the Form.

SUMMARY OF CRASHPC RESULTS USING DAMAGE

CRASH3 RECONSTRUCTION

SPEED CHANGE (DAMAGE)

VEHICLE #1

TOTAL 13 KPH (8 MPH)
 LONGITUDINAL -8 KPH (-5 MPH)
 LATITUDINAL 10 KPH (6 MPH)
 PDOF ANGLE -50 DEGREES
 ENERGY DISSIPATED = 22618 JOULES (16680 FT-LB)

VEHICLE #2

TOTAL 0 KPH (0 MPH)
 LONGITUDINAL 0 KPH (0 MPH)
 LATITUDINAL 0 KPH (0 MPH)
 PDOF ANGLE 0 DEGREES
 ENERGY DISSIPATED = 0 JOULES (0 FT-LB)

DAMAGE DATA

VEHICLE #1

VEHICLE #2

SIZE CATEGORY	3	11
STIFFNESS CATEGORY	3	0
VEHICLE WEIGHT	1449 KGS (3194 LBS)	***** KGS (2204586 LBS) *
CDC	10FDEW1	BARRIER
PDOF ANGLE	-50 DEGREES	0 DEGREES *
CRUSH LENGTH	140 CM. (55 IN.)	0 CM. (0 IN.) *
C1	6 CM. (2 IN.)	0 CM. (0 IN.) *
C2	6 CM. (2 IN.)	0 CM. (0 IN.) *
C3	6 CM. (2 IN.)	0 CM. (0 IN.) *
C4	6 CM. (2 IN.)	0 CM. (0 IN.) *
C5	6 CM. (2 IN.)	0 CM. (0 IN.) *
C6	6 CM. (3 IN.)	0 CM. (0 IN.) *
D	0 CM. (0 IN.)	0 CM. (0 IN.) *
D'	1 CM. (0 IN.)	0 CM. (0 IN.) *

(* INDICATES DEFAULT VALUE)

DIMENSIONS AND INERTIAL PROPERTIES

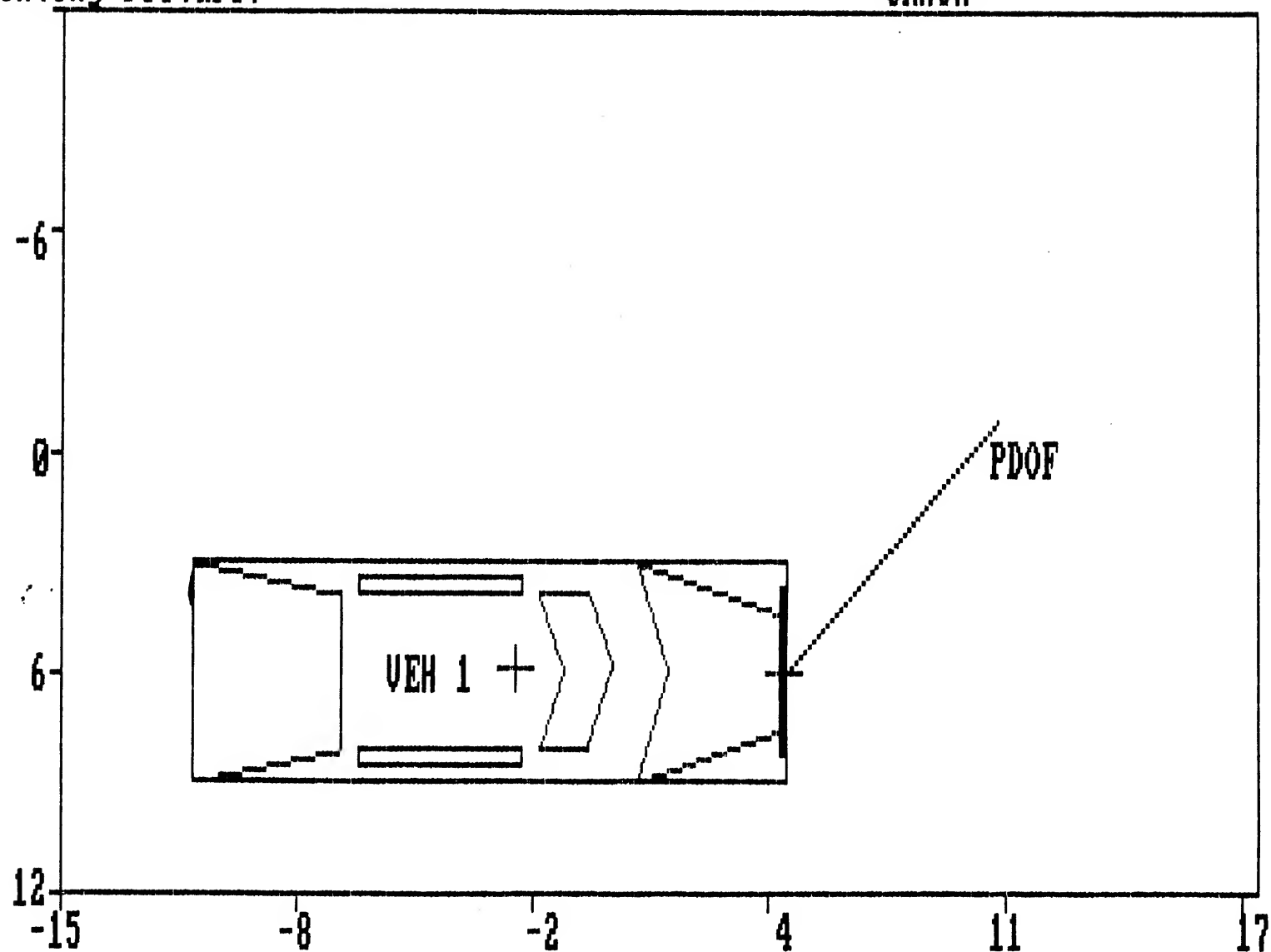
VEHICLE #1

VEHICLE #2

CG TO FRONT AXLE	130 CM. (51 IN.)	127 CM. (50 IN.)
CG TO REAR AXLE	141 CM. (56 IN.)	127 CM. (50 IN.)
TRACK	150 CM. (59 IN.)	127 CM. (50 IN.)
CG TO FRONT OF VEH	228 CM. (90 IN.)	127 CM. (50 IN.)
CG TO REAR OF VEH	-270 CM. (-106 IN.)	-127 CM. (-50 IN.)
CG TO SIDE OF VEH	92 CM. (36 IN.)	127 CM. (50 IN.)
MOMENT OF INERTIA	12523 KGS (27609 LBS)	***** KGS (***** LBS)
VEHICLE MASS	4 KGS (8 LBS)	2600 KGS (5732 LBS)

Printing Picture:

CRASH



DAMAGE DESCRIPTION

MESSAGES:

VEHICLE # 1

IMPACT SPEED km/h		SPEED CHANGE km/h			BASIS FOR RESULTS
FWD	LAT	TOTAL	LONG.	LATERAL	
N/A	N/A	N/A	N/A	N/A	SPINOUT TRAJECTORIES AND CONSERVATION OF LINEAR MOMENTUM
N/A	N/A	N/A	N/A	N/A	SPINOUT TRAJECTORIES AND DAMAGE
		13.0	-8.4	10.0	DAMAGE DATA ONLY

SUMMARY OF DAMAGE DATA
(NOTE: '***' indicates default value)

	Vehicle #1	Vehicle #2	
CLASS / STIFFNESS CATEGORIES	3 / 3	11 / 11	
WEIGHT	1449.0 kg	453514.8 kg	**
CDC	10FDEW1	BARRIER	
DAMAGE WIDTH	140.0 cm	0.0 cm	**
CRUSH DEPTH 1	6.0 cm	0.0 cm	**
CRUSH DEPTH 2	6.0 cm	0.0 cm	**
CRUSH DEPTH 3	6.0 cm	0.0 cm	**
CRUSH DEPTH 4	6.0 cm	0.0 cm	**
CRUSH DEPTH 5	6.0 cm	0.0 cm	**
CRUSH DEPTH 6	6.5 cm		
DAMAGE MIDPOINT OFFSET	0.0 cm	0.0 cm	**
DAMAGE ENERGY	22612.1 Joules	0.0 Joules	
MAGNITUDE OF PRINCIPAL FORCE	171824.8 N	171824.8 N	
DIRECTION OF PRINCIPAL FORCE	-50.0 deg	130.0 deg	**
MOMENT ARM OF PRINCIPAL FORCE	172.7 cm	0.0 cm	
DAMAGE CENTROID	0.5 cm	0.0 cm	

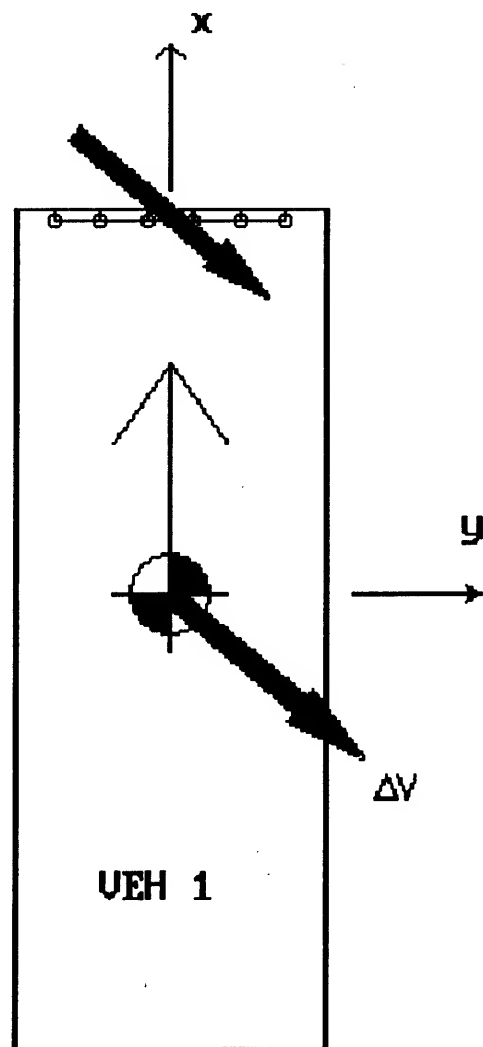
DIMENSIONAL, INERTIAL AND CRUSH STIFFNESS PROPERTIES
(NOTE: '***' indicates default value)

	Vehicle #1	Vehicle #2	
CG TO FRONT AXLE	130.3 cm	127.0 cm	**
CG TO REAR AXLE	141.0 cm	127.0 cm	**
TRACKWIDTH	149.6 cm	127.0 cm	**
YAW MOMENT OF INERTIA	3105.0 kg-m ²	1000000.0 kg-m ²	**
MASS	1446.6 kg	3105.0 kg	**
BODY LENGTH FROM CG TO FRONT	228.1 cm	127.0 cm	**
BODY LENGTH FROM CG TO REAR	-270.3 cm	-127.0 cm	**
BODY OVERALL WIDTH	184.4 cm	254.0 cm	**

CRUSH STIFFNESSES:

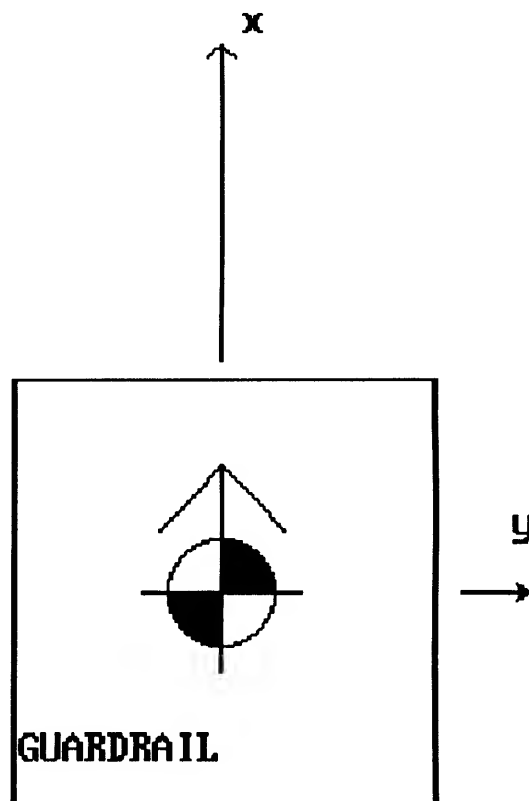
A	B	A	B
lb/in	lb/in ²	lb/in	lb/in ²
317.4 **	55.9 **	1000000.0 **	1000000.0 **

Vehicle No. 1



CDC/PDOF: 10FDEW1 -50.0 deg
Max Impact Force: 171825 N

Vehicle No. 2



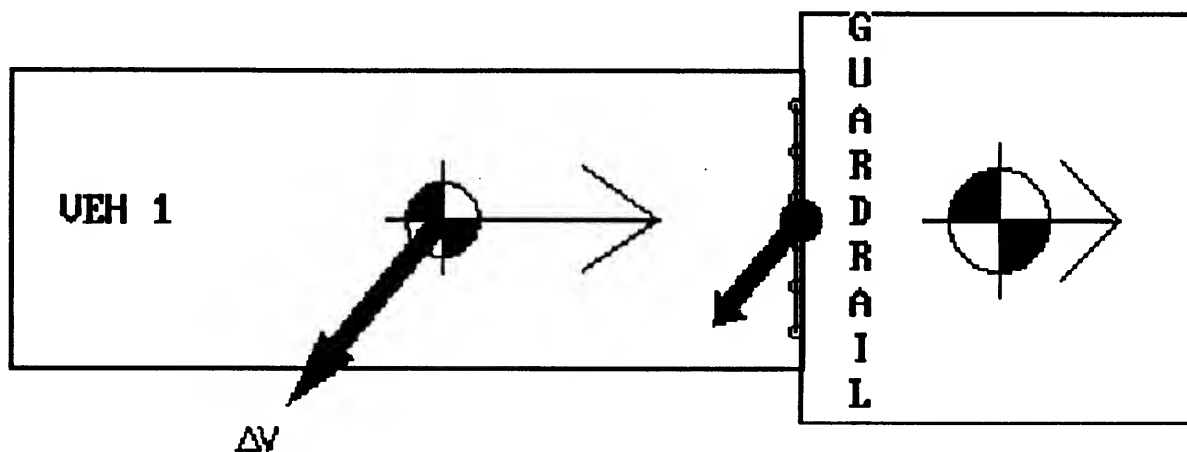
CDC/PDOF: BARRIER 130.0 deg
Max Impact Force: 171825 N



EDCRASH Damage Profiles

	Ueh #1	Ueh #2
Delta-U (km/h):		
X	-8.4	0.0
Y	10.0	-0.0
Tot	13.0	0.0

	Ueh #1	Ueh #2
Crush Data (cm):		
W	140.0	0.0
D	0.0	0.0
C1	6.0	0.0
C2	6.0	0.0
C3	6.0	0.0
C4	6.0	0.0
C5	6.0	0.0
C6	6.5	0.0



EDCRASH
At Impact

	Ueh #1	Ueh #2
Delta-U (km/h)		
(BASIS: Damage)		
X	-8.4	0.0
Y	10.0	-0.0
Tot	13.0	0.0
PDOF	-50.0	130.0

UNITS: km/h,m,deg

(NO SCENE DATA)

Appendix D:

NASS CDS ACCIDENT FORM



ACCIDENT FORM

1. Primary Sampling Unit Number

10

2. Case Number - Stratum

9418

IDENTIFICATION

3. Number of General Vehicle
Forms Submitted

01

4. Date of Accident
(Month, Day, Year)

11/19/94

5. Time of Accident

1140

Code reported military time of accident.

NOTE: Midnight = 2400
Unknown = 9999

SPECIAL STUDIES - INDICATORS

Check (✓) each special study (SS14-SS18 below) that has been completed; code 1 for the checked special studies and 0 for the special studies not checked.

6. SS15 Administrative Use

0

7. SS16 Pedestrian Crash Data Study

0

8. SS17 Impact Fires

0

9. SS18

0

10. SS19

0

NUMBER OF EVENTS

11. Number of Recorded Events
in This Accident

04

Code the number of events which occurred
in this accident.

ACCIDENT EVENTS

For each event that occurred in the accident, code the lowest numbered vehicle in the left columns and the other involved vehicle or object on the right.

Accident Event Sequence Number	Vehicle Number	Class Of Vehicle	General Area of Damage	Vehicle Number or Object Contacted	Class Of Vehicle	General Area of Damage
12. <u>01</u>	13. <u>01</u>	14. <u>03</u>	15. <u>F</u>	16. <u>56</u>	17. <u>00</u>	18. <u>0</u>
19. <u>02</u>	20. <u>01</u>	21. <u>03</u>	22. <u>F</u>	23. <u>43</u>	24. <u>00</u>	25. <u>0</u>
26. <u>03</u>	27. <u>01</u>	28. <u>03</u>	29. <u>L</u>	30. <u>41</u>	31. <u>00</u>	32. <u>0</u>
33. <u>04</u>	34. <u>01</u>	35. <u>03</u>	36. <u>U</u>	37. <u>60</u>	38. <u>00</u>	39. <u>0</u>
40. <u>05</u>	41. <u> </u>	42. <u> </u>	43. <u> </u>	44. <u> </u>	45. <u> </u>	46. <u> </u>

IF GREATER THAN FIVE EVENTS, CONTINUE CODING ON THE ACCIDENT EVENT SUPPLEMENT

CODES FOR CLASS OF VEHICLE

- (00) Not a motor vehicle
- (01) Subcompact/mini (wheelbase < 254 cm)
- (02) Compact (wheelbase ≥ 254 but < 265 cm)
- (03) Intermediate (wheelbase ≥ 265 but < 278 cm)
- (04) Full size (wheelbase ≥ 278 but < 291 cm)
- (05) Largest (wheelbase ≥ 291 cm)
- (09) Unknown passenger car size
- (11) Compact utility vehicle
- (12) Large utility vehicle (≤ 4,500 kgs GVWR)
- (13) Passenger van (≤ 4,500 kgs GVWR)
- (14) Other van (≤ 4,500 kgs GVWR)
- (15) Pickup truck (≤ 4,500 kgs GVWR)
- (18) Other truck (≤ 4,500 kgs GVWR)
- (19) Unknown light truck type
- (20) School bus
- (21) Other bus
- (22) Truck (> 4,500 kgs GVWR)
- (23) Tractor without trailer
- (24) Tractor-trailer(s)
- (25) Motored cycle
- (28) Other vehicle
- (99) Unknown

CODES FOR GENERAL AREA OF DAMAGE (GAD)

CDS APPLICABLE AND OTHER VEHICLES

- (0) Not a motor vehicle
- (N) Noncollision
- (F) Front
- (R) Right side
- (L) Left side
- (B) Back
- (T) Top
- (U) Undercarriage
- (9) Unknown

TDC APPLICABLE VEHICLES

- (0) Not a motor vehicle
- (N) Noncollision
- (F) Front
- (R) Right side
- (L) Left side
- (B) Back of unit with cargo
area (rear of trailer or
straight truck)
- (D) Back (rear of tractor)
- (C) Rear of cab
- (V) Front of cargo area
- (T) Top
- (U) Undercarriage
- (9) Unknown

CODES FOR VEHICLE NUMBER OR OBJECT CONTACTED

(01-30) — Vehicle Number

Noncollision

- (31) Overturn — rollover
- (32) Fire or explosion
- (33) Jackknife
- (34) Other intraunit damage (specify):

(35) Noncollision injury

(38) Other noncollision (specify):

(39) Noncollision — details unknown

Collision With Fixed Object

- (41) Tree (≤ 10 cm in diameter)
- (42) Tree (> 10 cm in diameter)
- (43) Shrubbery or bush
- (44) Embankment

(45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

- (50) Pole or post (≤ 10 cm in diameter)
- (51) Pole or post (> 10 cm but ≤ 30 cm in
diameter)
- (52) Pole or post (> 30 cm in diameter)
- (53) Pole or post (diameter unknown)

(54) Concrete traffic barrier

(55) Impact attenuator

(56) Other traffic barrier (includes guardrail)
(specify): guardrail

(57) Fence

(58) Wall

(59) Building

(60) Ditch or culvert

(61) Ground

(62) Fire hydrant

(63) Curb

(64) Bridge

(68) Other fixed object (specify):

(69) Unknown fixed object

Collision with Nonfixed Object

(71) Motor vehicle not in-transport

(72) Pedestrian

(73) Cyclist or cycle

(74) Other nonmotorist or conveyance

(75) Vehicle occupant

(76) Animal

(77) Train

(78) Trailer, disconnected in transport

(79) Object fell from vehicle in-transport

(88) Other nonfixed object (specify):

(89) Unknown nonfixed object

(98) Other event (specify):

(99) Unknown event or object

Appendix E:

NASS CDS VEHICLE FORMS: CASE VEHICLE



GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number 10
2. Case Number - Stratum 9418
3. Vehicle Number 01

VEHICLE IDENTIFICATION

4. Vehicle Model Year 92
Code the last two digits of the model year
(99) Unknown
5. Vehicle Make (specify): FORD 12
Applicable codes are found in your
NASS Data Collection, Coding and
Editing Manual.
(99) Unknown

6. Vehicle Model (specify): LX TAURUS 017
Applicable codes are found in your
NASS Data Collection, Coding and
Editing Manual.
(999) Unknown

7. Body Type 04
Note: Applicable codes may be found on
the back of this page.

8. Vehicle Identification Number
1EAC P5344NG
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
Left justify; Slash zeros and letter Z (0 and Z)
No VIN—Code all zeros
Unknown—Code all nines

OFFICIAL RECORDS

9. Police Reported Vehicle Disposition 1
(0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown
10. Police Reported Travel Speed 999
Code to the nearest kph (NOTE: 000 means
less than 0.5 kph)
(160) 159.5 kph and above
(999) Unknown

___ mph X 1.6093 = ___ kph

11. Police Reported Alcohol Presence 9
(0) No alcohol present
(1) Yes (alcohol present)
(7) Not reported
(8) No driver present
(9) Unknown

Note: See variables 37 through 55
(Page 4) for information on Other Drugs

12. Alcohol Test Result For Driver 00
Code actual value (decimal implied
before first digit—0.xx)
(95) Test refused
(96) None given
(97) AC test performed, results unknown
(98) No driver present
(99) Unknown

Source: Medical

ACCIDENT RELATED

13. Speed Limit 080
(000) No statutory limit
Code posted or statutory speed limit
in kph
(999) Unknown
50 mph X 1.6093 = 80.46 kph
14. Attempted Avoidance Maneuver 99
(01) No avoidance actions
(02) Braking (no lockup)
(03) Braking (lockup)
(04) Braking (lockup unknown)
(05) Releasing brakes
(06) Steering left
(07) Steering right
(08) Braking and steering left
(09) Braking and steering right
(10) Accelerating
(11) Accelerating and steering left
(12) Accelerating and steering right
(97) No driver present
(98) Other action (specify):
(99) Unknown

15. Accident Type 02
Applicable codes may be found on the
back of page two of this field form
(C0) No impact
Code the number of the diagram that
best describes the accident circumstance
(98) Other accident type (specify):
(99) Unknown

**** SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 ****

OCCUPANT RELATED

16. Driver Presence in Vehicle 1

- (0) Driver not present
(1) Driver present
(9) Unknown

17. Number of Occupants This Vehicle 01
(00-96) Code actual number of occupants for this vehicle
(97) 97 or more
(99) Unknown

18. Number of Occupant Forms Submitted 01

VEHICLE WEIGHT ITEMS

19. Vehicle Curb Weight 1430

- Code weight to nearest 10 kilograms.
(045) Less than 450 kilograms
(610) 6,100 kilograms or more
(999) Unknown

3160 lbs X .4536 = 1433 kgs

Source: [REDACTED]20. Vehicle Cargo Weight 0000

- Code weight to nearest 10 kilograms.
(000) Less than 5 kilograms
(450) 4,500 kilograms or more
(999) Unknown

_____ lbs X .4536 = _____ kgs

RECONSTRUCTION DATA

21. Towed Trailing Unit 0

- (0) No towed unit
(1) Yes—towed trailing unit
(9) Unknown

22. Documentation of Trajectory Data for This Vehicle 0

- (0) No
(1) Yes

23. Post Collision Condition of Tree or Pole (For Highest Delta V) 0

- (0) Not collision (for highest delta V) with tree or pole
(1) Not damaged
(2) Cracked/sheared
(3) Tilted <45 degrees
(4) Tilted ≥45 degrees
(5) Uprooted tree
(6) Separated pole from base
(7) Pole replaced
(8) Other (specify): _____

(9) Unknown

24. Rollover 0

- (0) No rollover (no overturning)

Rollover (primarily about the longitudinal axis)

- (1) Rollover, 1 quarter turn only
(2) Rollover, 2 quarter turns
(3) Rollover, 3 quarter turns
(4) Rollover, 4 or more quarter turns (specify): _____

- (5) Rollover--end-over-end (i.e., primarily about the lateral axis)

- (9) Rollover (overturn), details unknown

OVERRIDE/UNDERRIDE (THIS VEHICLE)

25. Front Override/Underride (this Vehicle) 026. Rear Override/Underride (this Vehicle) 0

- (0) No override/underride, or not an end-to-end impact

Override (see specific CDC)

- (1) 1st CDC
(2) 2nd CDC
(3) Other not automated CDC (specify): _____

Underride (see specific CDC)

- (4) 1st CDC
(5) 2nd CDC
(6) Other not automated CDC (specify): _____

- (7) Medium/heavy truck or bus override
(9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value
(997) Noncollision
(998) Impact with object
(999) Unknown

27. Heading Angle For This Vehicle 99828. Heading Angle For Other Vehicle 998

29. Basis for Total Delta V (highest)

5*Delta V Calculated*

- (1) CRASH program—damage only routine
- (2) CRASH program—damage and trajectory routine
- (3) Missing vehicle algorithm

Delta V Not Calculated

- (4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.
- (5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction technique, regardless of adequacy of damage data.
- (6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

COMPUTER GENERATED DELTA V

30. Total Delta V

Highest

999

_____ Nearest kph (highest)
_____ Nearest kph (secondary)

(NOTE: 000 means less than
0.5 kph)
(160) 159.5 kph and above
(999) Unknown

31. Longitudinal Component of
Delta V+ 999

_____ Nearest kph (highest)
_____ Nearest kph (secondary)

(NOTE: _000 means greater than
-0.5 kph and less than +0.5 kph)
(±160) ±159.5 kph and above
(_999) Unknown

32. Lateral Component of Delta V + 999 Highest

_____ Nearest kph (highest)
_____ Nearest kph (secondary)

(NOTE: _000 means greater than
-0.5 kph and less than +0.5 kph)
(±160) ±159.5 kph and above
(_999) Unknown

33. Energy Absorption

999.900

_____ Nearest 100 joules (highest)
_____ Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)
(9997) 999,650 joules or more
(9999) Unknown

34. Confidence In Reconstruction Program
Results (For Highest Delta V)0

- (0) No reconstruction
- (1) Collision fits model — results appear reasonable
- (2) Collision fits model — results appear high
- (3) Collision fits model — results appear low
- (4) Borderline reconstruction — results appear reasonable

35. Type of Vehicle Inspection

1

- (0) No inspection
- (1) Complete inspection
- (2) Partial inspection (specify):

36. Is this an AOPS Vehicle?

1

- (0) No
- (1) Yes - researcher determined
- (2) VIN determined air bag system
- (3) VIN determined automatic (passive) belts
- (4) VIN determined air bag and automatic (passive) belts

IS OLDMISS APPLICABLE FOR THIS VEHICLE? [] YES ☒ NOIF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? [] YES ☒ NO

37. Police Reported Other Drug Presence 9

- (0) No other drug(s) present
- (1) Yes (other drug(s) present)
- (7) Not reported
- (8) No driver present
- (9) Unknown

38. Police Reported Drug Evaluation Classification (DEC) Test For Driver 0

- (0) No DEC process available or given
- (1) DEC process given, results known
- (2) DEC process given, results unknown
- (3) DEC process available, unknown if given
- (8) No driver present

39. Other Drug Specimen Test Type For Driver 0

- (0) No specimen test given
- (1) Blood test
- (2) Urine test
- (3) Other specimen tests (specify): _____
- (7) Unspecified specimen test
- (8) No driver present
- (9) Unknown if specimen test given

DRUG EVALUATION CLASSIFICATION

OTHER DRUGS TEST RESULTS FOR DRIVER

	DEC Test Results	Specimen Test Results
Narcotic Drug	40. <u>0</u>	41. <u>0</u>
Depressant Drug	42. <u>0</u>	43. <u>0</u>
Stimulant Drug	44. <u>0</u>	45. <u>0</u>
Hallucinogen Drug	46. <u>0</u>	47. <u>0</u>
Cannabinoid Drug	48. <u>0</u>	49. <u>0</u>
Phencyclidine (PCP)	50. <u>0</u>	51. <u>0</u>
Inhalant Drug	52. <u>0</u>	53. <u>0</u>
Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)	54. <u>0</u>	55. <u>0</u>

Codes For DEC Test Results

- (0) No DEC test given
- (1) Passed DEC test
- (2) Failed DEC test
- (3) DEC test given—results unknown
- (8) No driver present
- (9) Unknown if DEC test given

Codes for Specimen Test Results

- (0) No specimen test given
- (1) Drug not found in specimen
- (2) Drug found in specimen
- (7) Specimen test given, results unknown or not obtained
- (8) No driver present
- (9) Unknown if specimen test given

OTHER DATA

56. Driver's Zip Code

- (00000) Driver not present
 (00001) Driver not a resident of U.S. or territories
 Code actual 5-digit zip code
 (99999) Unknown

57. Driver's Race/Ethnic Origin

- (0) Driver not present
 (1) White (non-Hispanic)
 (2) Black (non-Hispanic)
 (3) White (Hispanic)
 (4) Black (Hispanic)
 (5) American Indian, Eskimo or Aleut
 (6) Asian or Pacific Islander
 (8) Other (specify):
 (9) Unknown

58. Vehicle Special Use (This Trip)

- (0) No special use
 (1) Taxi
 (2) Vehicle used as school bus
 (3) Vehicle used as other bus
 (4) Military
 (5) Police
 (6) Ambulance
 (7) Fire truck or car
 (8) Other (specify):
 (9) Unknown

ROLLOVER DATA

If GV07 (Body Type) \neq 1-49, leave GV59-GV63 blank.
 If GV24 (Rollover) = 0, then GV59-GV63 must equal 0.
 If GV24 = 9, then GV59-GV63 must equal 9.

59. Rollover Initiation Type

- (0) No rollover
 (1) Trip-over
 (2) Flip-over
 (3) Turn-over
 (4) Climb-over
 (5) Fall-over
 (6) Bounce-over
 (7) Collision with another vehicle
 (8) Other rollover initiation type specify:
 (9) Unknown rollover initiation type

60. Location of Rollover Initiation

- (0) No rollover
 (1) On roadway
 (2) On shoulder—paved
 (3) On shoulder—unpaved
 (4) On roadside or divided trafficway median
 (9) Unknown

61. Rollover Initiation Object Contacted

62. Location on Vehicle Where Initial Principal Tripping Force Is Applied

- (0) No rollover
 (1) Wheels/tires
 (2) Side plane
 (3) End plane
 (4) Undercarriage
 (5) Other location on vehicle (specify):
 (8) Non-contact rollover forces (specify):
 (9) Unknown

63. Direction of Initial Roll

- (0) No rollover
 (1) Roll right - primarily about the longitudinal axis
 (2) Roll left - primarily about the longitudinal axis
 (5) End-over-end (i.e., primarily about the lateral axis)
 (9) Unknown roll direction

PRECRASH DATA

64. Pre-Event Movement (Prior to Recognition of Critical Event)

- (01) Going straight
 (02) Slowing or stopping in traffic lane
 (03) Starting in traffic lane
 (04) Stopped in traffic lane
 (05) Passing or overtaking another vehicle
 (06) Disabled or parked in travel lane
 (07) Leaving a parking position
 (08) Entering a parking position
 (09) Turning right
 (10) Turning left
 (11) Making a U-turn
 (12) Backing up (other than for parking position)
 (13) Negotiating a curve
 (14) Changing lanes
 (15) Merging
 (16) Successful avoidance maneuver to a previous critical event
 (97) Other (specify):
 (98) No driver present
 (99) Unknown

PRECRASH DATA (Continued)

65. Critical Precrash Event 09*This Vehicle Loss of Control Due To:*

- (01) Blow out or flat tire
- (02) Stalled engine
- (03) Disabling vehicle failure (e.g., wheel fell off) (specify): _____
- (04) Non-disabling vehicle problem (e.g., hood flew up) (specify): _____
- (05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): _____
- (06) Traveling too fast for conditions
- (08) Other cause of control loss (specify): _____
- (09) Unknown cause of control loss

This Vehicle Traveling

- (10) Over the lane line on left side of travel lane
- (11) Over the lane line on right side of travel lane
- (12) Off the edge of the road on the left side
- (13) Off the edge of the road on the right side
- (14) End departure
- (15) Turning left at intersection
- (16) Turning right at intersection
- (17) Crossing over (passing through) intersection
- (19) Unknown travel direction

Other Motor Vehicle In Lane

- (50) Stopped
- (51) Traveling in same direction with lower speed (i.e., lower steady speed or decelerating)
- (52) Traveling in same direction with higher speed
- (53) Traveling in opposite direction
- (54) In crossover
- (55) Backing
- (59) Unknown travel direction of other motor vehicle in lane

Other Motor Vehicle Encroaching Into Lane

- (60) From adjacent lane (same direction)—over left lane line
- (61) From adjacent lane (same direction)—over right lane line
- (62) From opposite direction—over left lane line
- (63) From opposite direction—over right lane line
- (64) From parking lane
- (65) From crossing street, turning into same direction
- (66) From crossing street, across path
- (67) From crossing street, turning into opposite direction
- (68) From crossing street, intended path not known
- (70) From driveway, turning into same direction
- (71) From driveway, across path
- (72) From driveway, turning into opposite direction
- (73) From driveway, intended path not known
- (74) From entrance to limited access highway
- (78) Encroachment by other vehicle—details unknown

Pedestrian or Pedalcyclist, or Other Nonmotorist

- (80) Pedestrian in roadway
- (81) Pedestrian approaching roadway
- (82) Pedestrian—unknown location
- (83) Pedalcyclist or other nonmotorist in roadway (specify): _____
- (84) Pedalcyclist or other nonmotorist approaching roadway (specify): _____
- (85) Pedalcyclist or other nonmotorist—unknown location (specify): _____

Object or Animal

- (87) Animal in roadway
- (88) Animal approaching roadway
- (89) Animal—unknown location
- (90) Object in roadway
- (91) Object approaching roadway
- (92) Object—unknown location

(98) Other critical precrash event (specify): _____

(99) Unknown

For Corrective Actions Attempted see variable GV14
(Attempted Avoidance Manuever)66. Precrash Stability After Avoidance Maneuver 9

- (0) No avoidance maneuver
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify): _____
- (8) No driver present
- (9) Precrash stability unknown

67. Precrash Directional Consequences of Avoidance Maneuver (Corrective Action) 9

- (0) No avoidance maneuver
- (1) Vehicle stayed in travel lane where avoidance maneuver was initiated
- (2) Vehicle stayed on roadway but left travel lane where avoidance maneuver was initiated
- (3) Vehicle stayed on roadway, not known if left travel lane where avoidance maneuver was initiated
- (4) Vehicle departed roadway
- (5) Avoidance maneuver initiated off roadway
- (8) No driver present
- (9) Directional consequences unknown

*** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35 = 0), ***
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

*** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE ***
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

EXTERIOR VEHICLE FORM

**NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM**

1. Primary Sampling Unit Number <u>10</u> 2. Case Number - Stratum <u>9418</u>		3. Vehicle Number <u>01</u>	
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VEHICLE IDENTIFICATION

VIN 1FACP5344NG Model Year 92
Vehicle Make (specify): FORD Vehicle Model (specify): TAURUS LX

LOCATOR

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L
1	ACROSS front Bumper	whole front bumper

CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure and document on the vehicle diagram the location of maximum crush.

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

[illegible]

ORIGINAL SPECIFICATIONS WORK SHEET

Wheelbase	<u>106.</u>	inches x 2.54 =	<u>269</u> cm
Overall Length	<u>192.</u>	inches x 2.54 =	<u>488</u> cm
Maximum Width	<u>71.2</u>	inches x 2.54 =	<u>181</u> cm
Curb Weight *	<u>3084</u>	pounds x .4536 =	<u>1,399</u> kg
Average Track	<u>61.05</u>	inches x 2.54 =	<u>155</u> cm
Front Overhang	<u>40.3</u>	inches x 2.54 =	<u>102</u> cm
Rear Overhang	<u>45.7</u>	inches x 2.54 =	<u>116</u> cm
Undeformed End Width	<u> </u>	inches x 2.54 =	<u>140</u> cm
Engine Size: cyl./displ.	<u> </u>	cc x .001 =	<u>3.0</u> L
	<u> </u>	CID x .0164 =	<u> </u> L

6 passenger, 4-door sedan, 4-speed automatic V6
with overdrive

*

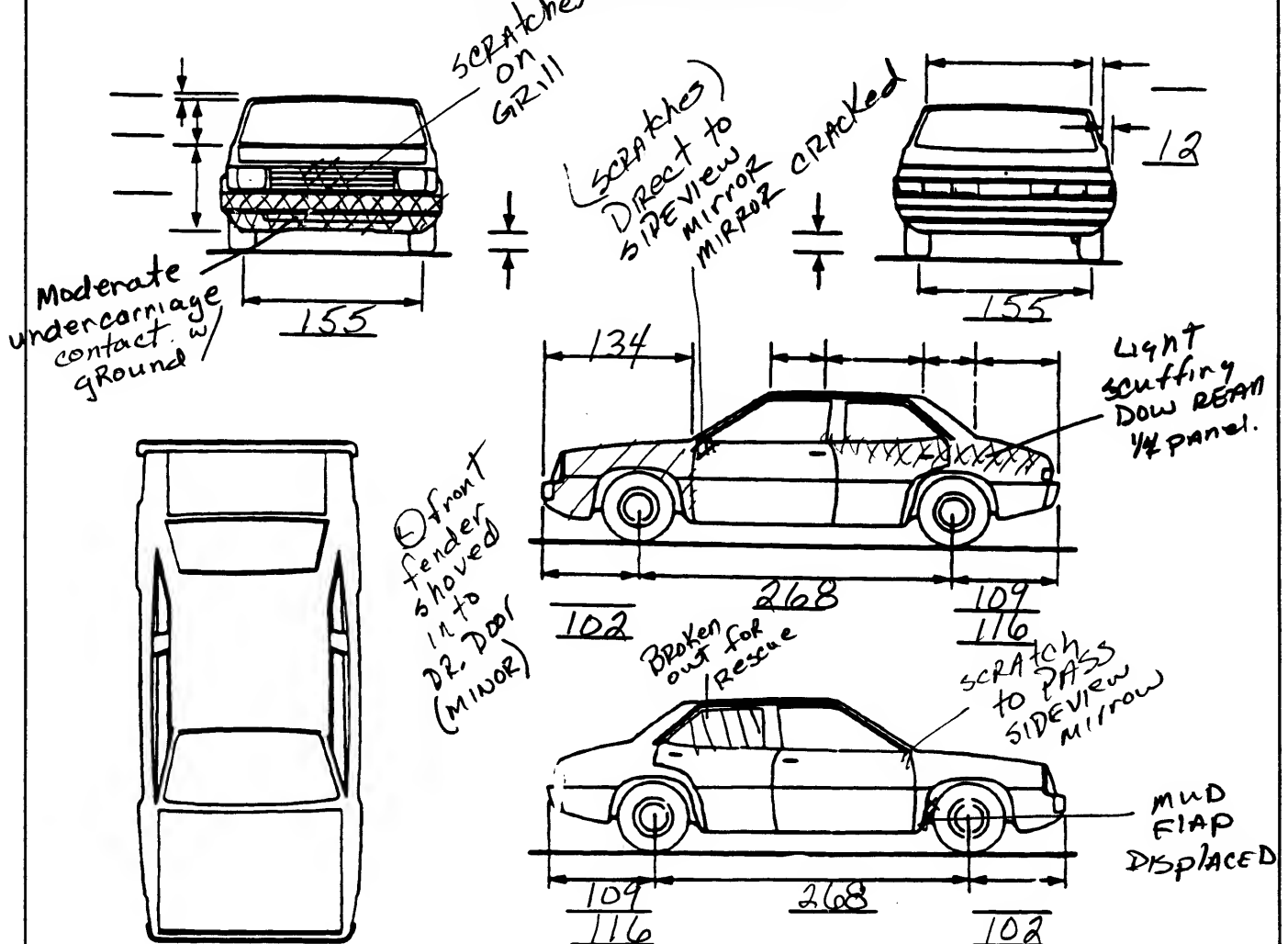
L	2991		
GL	2997	+87 =	3084
LX	3073	+87 =	3160
			1,433

Vehicle was a 5-passenger
4-door, sedan

VEHICLE DAMAGE SKETCH

TIRE—WHEEL DAMAGE a. Rotation physically restricted RF <u>2</u> LF <u>8</u> RR <u>2</u> LR <u>2</u> (1) Yes (2) No (8) NA (9) Unk.		b. Tire deflated RF <u>2</u> LF <u>2</u> RR <u>2</u> LR <u>2</u>		ORIGINAL SPECIFICATIONS Wheelbase <u>269</u> cm Overall Length <u>488</u> cm Maximum Width <u>181</u> cm Curb Weight <u>1433</u> kg Average Track <u>150</u> cm Front Overhang <u>102</u> cm Rear Overhang <u>116</u> cm Undeformed End Width _____ cm Engine Size: cyl./displ. <u>3.0</u> L		WHEEL STEER ANGLES (For locked front wheels or displaced rear axles only) RF ± _____ ° LF ± _____ ° RR ± _____ ° LR ± _____ ° Within ± 5 degrees	
TYPE OF TRANSMISSION <input type="checkbox"/> Manual <input checked="" type="checkbox"/> Automatic				DRIVE WHEELS <input checked="" type="checkbox"/> FWD <input type="checkbox"/> RWD <input type="checkbox"/> 4WD		Approximate Cargo Weight _____ kg	

MEASUREMENTS IN CENTIMETERS



NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, acuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

BRANHAM AUTOMOBILE REFERENCE BOOK-PASSENGER CAR SECTION

Michigan							
Type of Body	Model	Wheel Base	Total Length	Ship. Wt.	Tax H.P.	Factory List Price	Factory Del'd Price
Pass. Cap.							

FORD Motor Co., Michigan

1992 FESTIVA SERIES - FWD, 1.3 L, 4-Cyl (80.7"), EPFI Gas Engine

Bore & Stroke 2.79" x 3.29"; Tax. H.P. 12.45; P.D. 80.7 cu.in., 1.3 Liter, 99H; Manual Transaxle (5/17/91)

4-Ps 2-dr. Hatchback, L Series T05	T05	140.5"	1720	12.45	6,941	7,236
4-Ps 2-dr. Hatchback, GL Series T06	T06	140.5"	1,742	12.45	7,980	8,275

Options Festiva: 3-Speed Automatic Transaxle-\$515 for GL; Calif. Emissions System-\$72; Air Conditioning, Manual-\$863 for GL; Defroster, Rear Window-\$170; Radio, Electronic AM/FM Stereo Cassette w/Digital Clock, L-\$467; GL-\$155; Roof, Flip-Up Open Air-\$243; Sports Option Package-\$366 for GL Model

1992 MUSTANG SERIES RWD, 4-Cyl, 2.3 L (140"), EPFI Gas Engine

Bore & Stroke, 3.78" x 3.12"; Tax. H.P. 22.9; P.D., 140 cu.in., 2.3 Liter, 5-Spd. Man. Trans., 5/17/91

MUSTANG-100.5" w.b., 5-Spd. Manual Transmission

4-Ps 2-dr. LX Sedan P40	66 (BA) HVS	100.5"	179.6"	2,658	22.9	10,215	10,655
4-Ps 2-dr. LX Hatchback P41	61 (DA) HVS	100.5"	179.6"	2,717	22.9	10,721	11,161
4-Ps 2-dr. LX Convertible P44	66 (BA) HVS	100.5"	179.6"	2,875	22.9	16,899	17,339

1992 MUSTANG SERIES RWD 5.0L, V8 Cycl. (302"), EPFI Gas Engine

Bore & Stroke, 4" x 3"; Tax. H.P. 51.2; P.D. 302 cu.in., 5.0 Liter, w.b. 100.5"; 5-Spd. Man. Trans., 5/17/91

4-Ps 2-dr. LX Sedan P40	66 (BA) HVS	100.5"	179.6"	2,882	51.2	13,422	13,862
4-Ps 2-dr. LX Hatchback, P40	61 (DA) HVS	100.5"	179.6"	2,914	51.2	14,207	14,647
4-Ps 2-dr. LX Convertible P44	66 (BA) B2L	100.5"	179.6"	3,103	51.2	19,644	20,084

MUSTANG GT Model RWD

4-Ps 2-dr. GT Hatchback P42	61 (DA) HVB	100.5"	179.6"	3,016	51.2	15,243	15,683
4-Ps 2-dr. GT Convertible P45	66 (BA) HVS (B2L)	100.5"	179.6"	3,237	51.2	20,199	20,539

Options Mustang: 4-Spd. Automatic Overdrive-\$595; Calif. Emissions System-\$100; Leather Seating Surfaces - Sport-\$523; Air Conditioning, Manual Control-\$817; Defroster, Rear Window-\$170; Roof, Flip-Up Open Air-\$355; Seat, 4-way Power Driver's-\$183; Wheels, Cast Aluminum, LX Model-\$401

1992 PROBE Series - FWD, 2.2L, 4-Cyl (133.3"), EPFI Gas Eng. (99C) (99L)

Bore & Stroke, 3.39" x 3.7"; Tax., H.P. 18.39; P.D., 133.3 cu.in., 2.2 Liter

PROBE - 99.0" w.b., 99C/445

4-Ps 2-dr. GT, H.B., Man. Tr. T20	AF	99.0"	177.0"	2,622	18.39	12,257	12,587
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PROBE - 99.0" w.b., 99L/445

4-Ps 2-dr. GT, H.B., Man. Tr. T22	AX	99.0"	177.0"	2,892	18.37	14,857	15,187
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1992 PROBE Series - FWD, 3.0L; V6 Cyl (182"), EPFI Gas Eng. (99U)

Bore & Stroke 3.5" x 3.1"; Tax. H.P. 29.4; P.D. 182 cu.in., 3.0 Liter

PROBE - 99.0" w.b., 99U/445

4-Ps 2-dr. LX H.B., Man. Tr. T21	AL	99.0"	177.0"	2,862	29.4	13,257	13,587
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Options Probe: 4-Spd., Overdrive Automatic-\$732; Calif. Emissions System-\$72; Leather Seating Surfaces Buckets-\$523 for GT and LX; Air Conditioning, Manual, Model GL, without tinted glass-\$937; All other models \$817; Air Conditioning, Electronic, LX & GT-\$1000; Anti-Lock Brakes, Models LX & GT-\$595; I Convenience Group II GL-\$188; LX and GT-\$323; Power Door Locks, GL-\$210; Power Driver's Seat-\$305 for LX & GT; Power Side Windows & Door Locks-\$485 for LX & GT; Radio, AM/FM Electronic Cassette with packages 253A-\$709; without said packages-\$1080; Roof, Flip-Up Open Air-\$355; Speed control-\$224; Trip Computer-\$215 for LX & GT; Wheels, Aluminum with BSW Tires-\$313 for GL model

1992 TAURUS Series (FWD) 3.0 L, V6 Cyl (182") SEFI Gas Engine, 99U & 99Y

Bore & Stroke 3.50" x 3.15"; Tax. H.P. 29.4; P.D., 182 cu.in., 3.0 Liter

TAURUS FWD, w.b., 106.0"; 4-Spd. Auto w/O.D. Trans.

6-Ps 4-dr. L Sedan	P50 FC/HVS	106.0"	192.0"	2,991	29.4	14,980	15,470
6-Ps 4-dr. GL Sedan	P52 FC/HVD	106.0"	192.0"	2,997	29.4	15,280	15,770
6-Ps 4-dr. LX Sedan	P53 FC/HVB	106.0"	192.0"	3,073	29.4	17,775	18,265
6-Ps 4-dr. L Wagon	P55 FF/HVS	106.0"	193.1"	3,142	29.4	16,013	16,503
6-Ps 4-dr. GL Wagon	P57 FF/HVD	106.0"	193.1"	3,144	29.4	16,290	16,780
6-Ps 4-dr. LX Wagon	P58 FF/HVB	106.0"	193.1"	3,268	29.4	19,464	19,954

1992 TAURUS Series FWD, 3.0 L, V6 Cyl (182"), DOHC, SEFI Gas Engine 99Y

Bore & Stroke, 3.50" x 3.15"; Tax. H.P. 29.4; P.D. 182 cu.in., 3.0 Liter

TAURUS SHO, w.b., 106.0"; 5-Spd. Manual Trans. Transaxle

5-Ps 4-dr. Sedan, "SHO"	P54 FC/HVE	106.0"	192.0"	3,189	29.4	23,839	24,329
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Options Taurus: 3.8 Liter EFI 6 Cyl. Eng. for GL & LX-\$555; Calif. Emissions System-\$100; Air Bag Passenger-\$488; Air Conditioning, Electronic Climate Control, LX Model-\$183; Anti-Lock Braking System-\$595; Audio Digital Disc-\$491; Ford JBL Audio System-\$526 for LX & SHO Models; Locks, Power Door-\$257 Model L; Luxury Convenience Group-\$1407 for Models LX & SHO; Moonroof, Power-\$776 for LX & SHO; Power Seats, Driver/Passenger-\$305 for LX & SHO; Seat, Rear Facing Third-\$155 for Wagons only L, GL, LX; Speed Control-\$244 for L Model; Washer/Wiper/Rear Window-\$135 for Wagons only, L & GL; Wheels, Sparkle Cast Aluminum-\$389 for GL only; Windows, Power Side-\$356 for Model L

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>04</u>	5. <u>61</u>	6. <u>12</u>	7. <u>U</u>	8. <u>F</u>	9. <u>D</u>	10. <u>W</u>	11. <u>02</u>

Second Highest Delta "V"

12. <u>01</u>	13. <u>56</u>	14. <u>10</u>	15. <u>F</u>	16. <u>D</u>	17. <u>E</u>	18. <u>W</u>	19. <u>01</u>
---------------	---------------	---------------	--------------	--------------	--------------	--------------	---------------

CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

HIGHEST DELTA "V"

20. L	21. C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	22. ± D

Second Highest Delta "V"

23. L	24. C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	25. ± D
<u>140</u>	<u>006</u>	<u>006</u>	<u>006</u>	<u>006</u>	<u>006</u>	<u>007</u>	<u>+000</u>

26. Are CDCs Documented but Not Coded on The Automated File?
(0) No
(1) Yes

1

27. Researcher's Assessment of Vehicle Disposition
(0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown

9

28. Original Wheelbase
Code to the nearest centimeter
(999) Unknown

269

_____ inches X 2.54 = _____ centimeters

<p>29. Is This A Multi-Stage Manufactured Vehicle And/Or A Certified Altered Vehicle? <u>0</u></p> <p>(0) No post manufacturer modifications (1) Yes - post manufacturer modifications (specify): _____</p> <p>_____ (Include photograph of CERTIFICATION PLACARD in case report)</p> <p>(9) Unknown if vehicle is modified</p> <p>30. Fire Occurrence <u>0</u></p> <p>(0) No fire</p> <p>Yes, fire occurred</p> <p>(1) Minor (2) Major (9) Unknown</p> <p>31. Origin of Fire <u>0</u></p> <p>(0) No fire (1) Vehicle exterior (front, side, back, top) (2) Exhaust system (3) Fuel tank (and other fuel retention system parts) (4) Engine compartment (5) Cargo/trunk compartment (6) Instrument panel (7) Passenger compartment area (8) Other location (specify): _____</p> <p>(9) Unknown</p> <p>32. Type of Fuel Tank-1 <u>1</u></p> <p>33. Type of Fuel Tank-2 <u>0</u></p> <p>(0) No fuel tank (electrical vehicle) (1) Metallic (2) Non-metallic (9) Unknown</p>	<p>34. Fuel Tank-1 Location <u>4</u></p> <p>35. Fuel Tank-2 Location <u>0</u></p> <p>(0) No fuel tank (1) Aft of center of the rear wheels (rear axle) centered (2) Aft of center of the rear wheels (rear axle) left side (3) Aft of center of the rear wheels (rear axle) right side (4) Forward of center of the rear wheels (rear axle) centered (5) Forward of center of the rear wheels (rear axle) left side (6) Forward of center of the rear wheels (rear axle) right side (7) Over center of the rear wheels (rear axle) (8) Other (specify): _____</p> <p>(9) Unknown</p> <p>36. Fuel Tank-1 Filler Cap Location <u>3</u></p> <p>37. Fuel Tank-2 Filler Cap Location <u>0</u></p> <p>(0) No fuel tank (1) On back plane (2) Aft of center of the rear wheels (rear axle) on left side plane (3) Aft of center of the rear wheels (rear axle) on right side plane (4) Forward of center of the rear wheels (rear axle) on left side plane (5) Forward of center of the rear wheels (rear axle) on right side plane (6) Over the center of the rear wheels (rear axle) on left side plane (7) Over the center of the rear wheels (rear axle) on right side plane (8) Other (specify): _____</p> <p>(9) Unknown</p> <p>38. Fuel Tank-1 Damage <u>1</u></p> <p>39. Fuel Tank-2 Damage <u>0</u></p> <p>(0) No fuel tank (1) No damage to fuel tank (2) Deformed, no seam failure (3) Deformed, with a seam failure (4) Punctured (5) Lacerated (ripped) (6) Abraded (scraped) (7) Filler neck separation from the fuel tank (8) Other damage (specify): _____</p> <p>(9) Unknown</p>
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[illegible]

***** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED AND WAS NOT AN AOPS *****
(I.E., GV09=0 OR 9 AND GV36=0), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.



INTERIOR VEHICLE FORM

1. Primary Sampling Unit Number

2. Case Number - Stratum

3. Vehicle Number

INTEGRITY

4. Passenger Compartment Integrity
(00) No integrity loss

Yes, Integrity Was Lost Through

- (01) Windshield
(02) Door (side)
(03) Door/hatch (back door)
(04) Roof
(05) Roof glass
(06) Side window
(07) Rear window (backlight)
(08) Roof and roof glass
(09) Windshield and door (side)
(10) Windshield and roof
(11) Side and rear window (side window and backlight)
(12) Windshield and side window
(13) Door and side window
(98) Other combination of above (specify):

(99) Unknown

Door, Tailgate or Hatch Opening

5. LF 1 6. RF 1 7. LR 1 8. RR 1 9. TG/H 0

- (0) No door/gate/hatch
(1) Door/gate/hatch remained closed and operational
(2) Door/gate/hatch came open during collision
(3) Door/gate/hatch jammed shut
(8) Other (specify):

(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 \neq 2, Then code 0

10. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

- (0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision

- (1) Door operational (no damage)
(2) Latch/striker failure due to damage
(3) Hinge failure due to damage
(4) Door structure failure due to damage
(5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage
(6) Latch/striker and hinge failure due to damage
(8) Other failure (specify):

(9) Unknown

GLAZING

Glazing Damage from Impact Forces

15. WS 0 16. LF 0 17. RF 0 18. LR 0 19. RR 0
20. BL 0 21. Roof 8 22. Other 0

- (0) No glazing damage from impact forces
(2) Glazing in place and cracked from impact forces
(3) Glazing in place and holed from impact forces
(4) Glazing out-of-place (cracked or not) and not holed from impact forces
(5) Glazing out-of-place and holed from impact forces
(6) Glazing disintegrated from impact forces
(7) Glazing removed prior to accident
(8) No glazing
(9) Unknown if damaged

Glazing Damage from Occupant Contact

23. WS 0 24. LF 0 25. RF 0 26. LR 0 27. RR 0
28. BL 0 29. Roof 0 30. Other 0

- (0) No occupant contact to glazing or no glazing
(1) Glazing contacted by occupant but no glazing damage
(2) Glazing in place and cracked by occupant contact
(3) Glazing in place and holed by occupant contact
(4) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact
(5) Glazing out-of-place by occupant contact and holed by occupant contact
(6) Glazing disintegrated by occupant contact
(9) Unknown if contacted by occupant

If No Glazing Damage *And* No Occupant Contact or No Glazing, Then Code IV31 Through IV46 As 0

Type of Window/Windshield Glazing

31. WS 0 32. LF 0 33. RF 0 34. LR 0 35. RR 0
36. BL 0 37. Roof 0 38. Other 0

- (0) No glazing contact and no damage, or no glazing
(1) AS-1 - Laminated
(2) AS-2 - Tempered
(3) AS-3 - Tempered-tinted
(4) AS-14 - Glass/Plastic
(8) Other (specify):

(9) Unknown

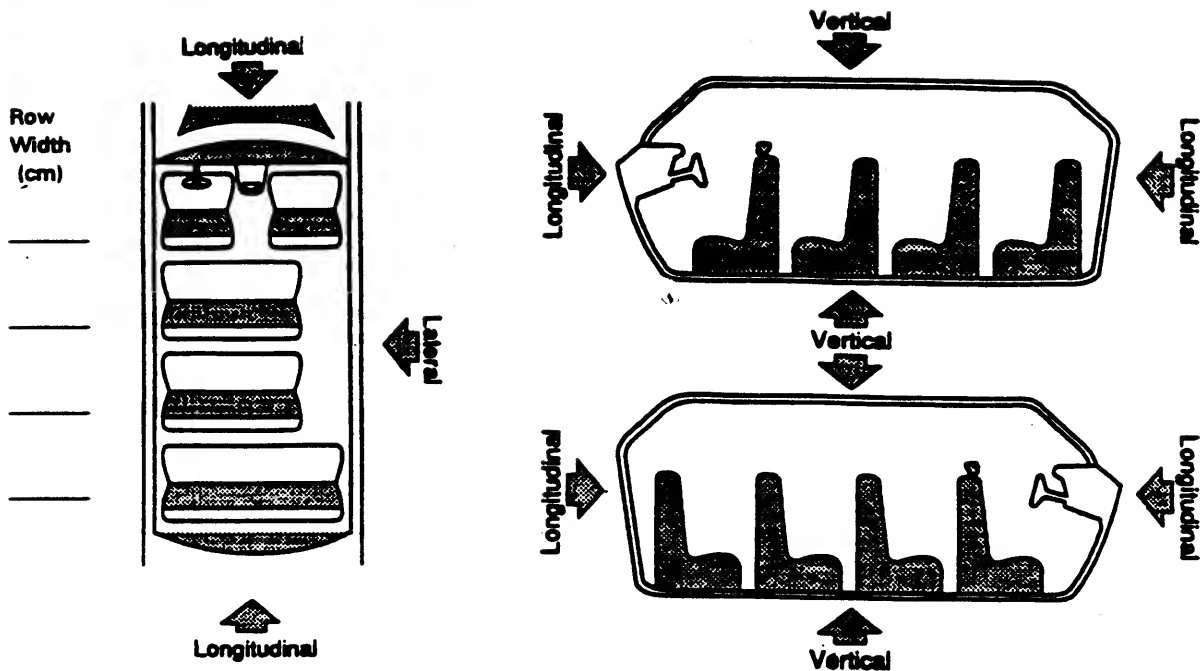
Window Precrash Glazing Status

39. WS 0 40. LF 0 41. RF 0 42. LR 0 43. RR 0
44. BL 0 45. Roof 0 46. Other 0

- (0) No glazing contact and no damage, or no glazing
(1) Fixed
(2) Closed
(3) Partially opened
(4) Fully opened
(9) Unknown

INTRUSION WORKSHEET

Note: Sketch intruded areas



LOCATION OF INTRUSION	INTRUDED COMPONENT	(All Measurements Are In Centimeters)			INTRUSION	DOMINANT CRUSH DIRECTION
		COMPARISON VALUE	INTRUDED VALUE	=		
		—		=		
		—		=		
		—		=		
		—		=		
		—		=		
		—		=		
		—		=		
		—		=		
		—		=		
		—		=		
		—		=		
		—		=		
		—		=		
		—		=		
		—		=		

Document no more than the 15 most severe intrusions

OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. _____	48. _____	49. _____	50. _____
2nd	51. _____	52. _____	53. _____	54. _____
3rd	55. _____	56. _____	57. _____	58. _____
4th	59. _____	60. _____	61. _____	62. _____
5th	63. _____	64. _____	65. _____	66. _____
6th	67. _____	68. _____	69. _____	70. _____
7th	71. _____	72. _____	73. _____	74. _____
8th	75. _____	76. _____	77. _____	78. _____
9th	79. _____	80. _____	81. _____	82. _____
10th	83. _____	84. _____	85. _____	86. _____

LOCATION OF INTRUSION

Front Seat

- (11) Left
(12) Middle
(13) Right

Second Seat

- (21) Left
(22) Middle
(23) Right

Third Seat

- (31) Left
(32) Middle
(33) Right

Fourth Seat

- (41) Left
(42) Middle
(43) Right

- (97) Catastrophic
(98) Other enclosed area (specify) _____

(99) Unknown

INTRUDING COMPONENT

Interior Components

- (01) Steering assembly
(02) Instrument panel left
(03) Instrument panel center
(04) Instrument panel right
(05) Toe pan
(06) A (A1/A2)-pillar
(07) B-pillar
(08) C-pillar
(09) D-pillar
(10) Door panel (side)
(12) Roof (or convertible top)
(13) Roof side rail
(14) Windshield
(15) Windshield header
(16) Window frame
(17) Floor pan (includes sill)
(18) Backlight header
(19) Front seat back
(20) Second seat back
(21) Third seat back
(22) Fourth seat back
(23) Fifth seat back
(24) Seat cushion
(25) Back door/panel (e.g., tailgate)
(26) Other interior component (specify): _____

- (27) Side panel - forward of the A (A2)-pillar
(28) Side panel - rear of the A (A2)-pillar

Exterior Components

- (30) Hood
(31) Outside surface of this vehicle (specify): _____
(32) Other exterior object in the environment (specify): _____
(33) Unknown exterior object
(97) Catastrophic
(98) Intrusion of unlisted component(s) (specify): _____
(99) Unknown

MAGNITUDE OF INTRUSION

- (1) ≥ 3 centimeters but < 8 centimeters
(2) ≥ 8 centimeters but < 15 centimeters
(3) ≥ 15 centimeters but < 30 centimeters
(4) ≥ 30 centimeters but < 46 centimeters
(5) ≥ 46 centimeters but < 61 centimeters
(6) ≥ 61 centimeters
(7) Catastrophic
(9) Unknown

DOMINANT CRUSH DIRECTION

- (1) Vertical
(2) Longitudinal
(3) Lateral
(7) Catastrophic
(9) Unknown

STEERING RIM SPOKE DEFORMATION

(All Measurements Are in Centimeters)

COMPARISON VALUE	-	DAMAGE VALUE	=	DEFORMATION
------------------	---	--------------	---	-------------

15 1/2	-	12 1/2 cm	=	3
	-		=	
	-		=	
	-		=	

5th notch down on tilt

STEERING COLUMN

87. Steering Column Type 2

- (1) Fixed column
 (2) Tilt column
 (3) Telescoping column
 (4) Tilt and telescoping column
 (8) Other column type (specify): _____

(9) Unknown

88. Blank X X

(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

89. Blank X X X

(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

90. Blank X X X

(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

91. Blank X X X

(This variable is left blank so that numbering consistency can be maintained with the 1988-94 CDS.

92. Steering Rim/Spoke Deformation 0 3

- Code actual measured deformation to the nearest centimeter
 (00) No steering rim deformation
 (01-14) Actual measured value in centimeters
 (15) 15 centimeters or more
 (98) Observed deformation cannot be measured
 (99) Unknown

93. Location of Steering Rim/Spoke Deformation 0 5

(00) No steering rim deformation

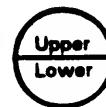
Quarter Sections

- (01) Section A
 (02) Section B
 (03) Section C
 (04) Section D



Half Sections

- (05) Upper half of rim/spoke
 (06) Lower half of rim/spoke
 (07) Left half of rim/spoke
 (08) Right half of rim/spoke



- (09) Complete steering wheel collapse
 (10) Undetermined location
 (99) Unknown

INSTRUMENT PANEL

94. Odometer Reading 0 6 2 . 000

_____ kilometers—Code to the nearest 1,000 kilometers

- (000) No odometer
 (001) Less than 1,500 kilometers
 (500) 499,500 kilometers or more
 (999) Unknown

38 567 miles X 1.6093 = 62 068 kilometers

Source: _____

95. Instrument Panel Damage from Occupant Contact? 0

- (0) No
 (1) Yes
 (9) Unknown

96. Knee Bolsters Deformed from Occupant Contact? 0

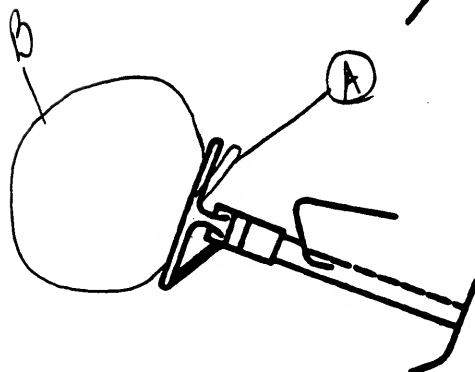
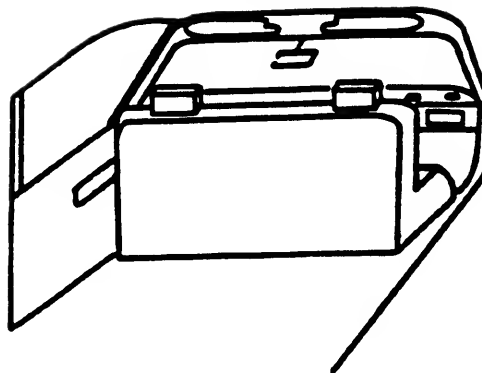
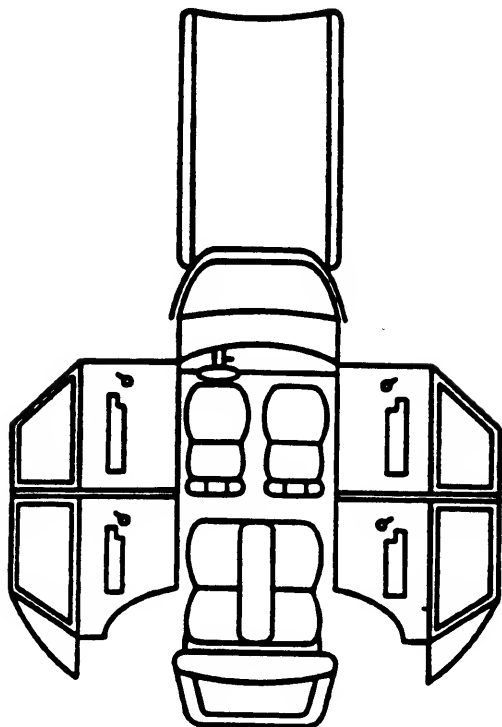
- (0) No
 (1) Yes
 (8) Not present
 (9) Unknown

97. Did Glove Compartment Door Open During Collision(s)? 9

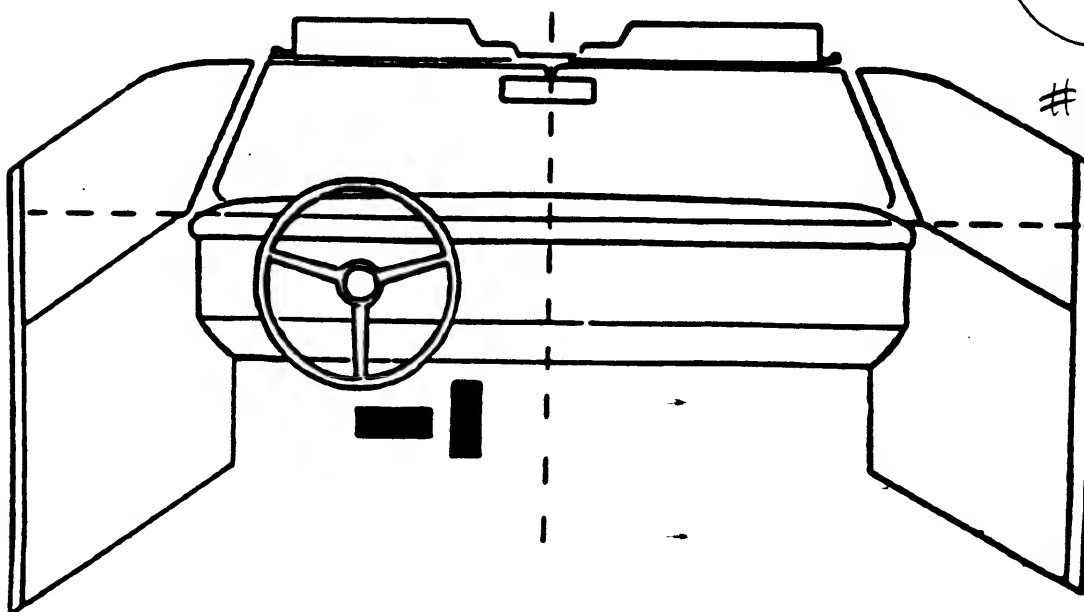
- (0) No
 (1) Yes
 (8) Not present
 (9) Unknown

VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment



Holes - 2
 CLOCK DIR - 11, 1
 DIAM - 2.2CM



Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).

Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.

Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	04	1	FACE	Bent	1
B	45	1	FACE	Blood	1
C					
D					
E					
F					
G					
H					
I					
J					
K					
L					
M					
N					

CODES FOR INTERIOR COMPONENTS

FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify): _____
- (19) Other front object (specify): _____

LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar

- (23) Left B-pillar

- (24) Other left pillar (specify): _____

- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (27) Other left side object (specify): _____

- (28) Left side window sill

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A (A1/A2)-pillar
- (33) Right B-pillar
- (34) Other right pillar (specify): _____

- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B pillar, or roof side rail.
- (37) Other right side object (specify): _____

- (38) Right side window sill

INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify): _____
- (44) Head restraint system
- (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)

- (46) Other occupants (specify): _____

- (47) Interior loose objects

- (48) Child safety seat (specify): _____

- (49) Other interior object (specify): _____

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): _____

CONFIDENCE LEVEL OF CONTACT POINT

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

AUTOMATIC RESTRAINTS

NOTES: Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

AIR BAGS

		Left	Right
F I R S T	Availability/Function	1	0
	Deployment	3	0
	Failure	1	

Air Bag System Availability/Function

- (0) Not equipped/not available
(1) Air bag

Non-functional

- (2) Air bag disconnected (specify):

(3) Air bag not reinstalled
(9) Unknown

Air Bag System Deployment

- (0) Not equipped/not available
(1) Air bag deployed during accident (as a result of impact)
(2) Air bag deployed inadvertently just prior to accident
(3) Air bag deployed, accident sequence undetermined
(4) Nondeployed
(5) Unknown if deployed
(6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
(9) Unknown

Are There Indications of Air Bag System Failure?

- (0) Not equipped/not available
(1) No
(2) Yes (specify):

(9) Unknown

AUTOMATIC BELTS

		Left	Right
F I R S T	Availability/Function	0	0
	Use		
	Type		
	Proper Use		
	Failure Modes		

Automatic (Passive) Belt System Availability/Function

- (0) Not equipped/not available
(1) 2 point automatic belts
(2) 3 point automatic belts
(3) Automatic belts - type unknown

Non-functional

- (4) Automatic belts destroyed or rendered inoperative
(9) Unknown

Automatic (Passive) Belt System Use

- (0) Not equipped/not available/destroyed or rendered inoperative
(1) Automatic belt in use
(2) Automatic belt not in use (manually disconnected, motorized track inoperative)
(3) Automatic belt use unknown
(9) Unknown

Automatic (Passive) Belt System Type

- (0) Not equipped/not available
(1) Non-motorized system
(2) Motorized system
(9) Unknown

Proper Use of Automatic (Passive) Belt System

- (0) Not equipped/not available/not used
(1) Automatic belt used properly
(2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

- (3) Automatic shoulder belt worn under arm
(4) Automatic shoulder belt worn behind back
(5) Automatic belt worn around more than one person
(6) Lap portion of automatic belt worn on abdomen
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of automatic belt system (specify):

(9) Unknown

Automatic (Passive) Belt Failure Modes During Accident

- (0) Not equipped/not available/not in use
(1) No automatic belt failure(s)
(2) Torn webbing (stretched webbing not included)
(3) Broken buckle or latchplate
(4) Upper anchorage separated
(5) Other anchorage separated (specify):

(6) Broken retractor
(7) Combination of above (specify):

(8) Other automatic belt failure (specify):

(9) Unknown

MANUAL RESTRAINTS

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

If a Child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
FIRST	Availability	4	0	4
	Evidence of usage	04		04
	Used in this crash?	04		0
	Proper Use	1		0
	Failure Modes	1		1
SECOND	Availability	4	3	4
	Evidence of usage	04	0	04
	Used in this crash?	0	0	0
	Proper Use			
	Failure Modes			
OTHER	Availability			
	Evidence of usage			
	Used in this crash?			
	Proper Use			
	Failure Modes			

Manual (Active) Belt System Availability

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available - type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): _____

(9) Unknown

Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperable (specify): _____
- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown
- (08) Other belt used (specify): _____
- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat - type unknown
- (18) Other belt used with child safety seat (specify): _____
- (99) Unknown if belt used

Proper Use of Manual (Active) Belts

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____

(8) Other improper use of manual belt system (specify): _____

(9) Unknown

Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____
- (6) Broken retractor
- (7) Combination of above (specify): _____
- (8) Other manual belt failure (specify): _____
- (9) Unknown

CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage						
4. Child Safety Seat Shield Usage						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model	Specify Below for Each Child Safety Seat					

1. Type of Child Safety Seat

- (0) No child safety seat
- (1) Infant seat
- (2) Toddler seat
- (3) Convertible seat
- (4) Booster seat
- (7) Other type child safety seat (specify): _____
- (8) Unknown child safety seat type
- (9) Unknown if child safety seat used

2. Child Safety Seat Orientation

- (00) No child safety seat
- Designed for Rear Facing for This Age/Weight
- (01) Rear facing
- (02) Forward facing
- (08) Other orientation (specify): _____
- (09) Unknown orientation

Designed for Forward Facing for This Age/Weight

- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify): _____
- (19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight

- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify): _____
- (29) Unknown orientation

(99) Unknown if child safety seat used

3. Child Safety Seat Harness Usage

4. Child Safety Seat Shield Usage

5. Child Safety Seat Tether Usage

Note: Options Below Are Used for Variables 3-5.

(00) No child safety seat

Not Designed with Harness/Shield/Tether

- (01) After market harness/shield/tether added, not used
- (02) After market harness/shield/tether used
- (03) Child safety seat used, but no after market harness/shield/tether added
- (09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether

- (11) Harness/shield/tether not used
- (12) Harness/shield/tether used
- (19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

- (21) Harness/shield/tether not used
- (22) Harness/shield/tether used
- (29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

6. Child Safety Seat Make/Model

(Specify make/model and occupant number)

HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	Head Restraint Type/Damage	3	0	3
	Seat Type	02		02
	Seat Performance	1		1
	Seat Orientation	1		1
SECOND	Head Restraint Type/Damage	0	0	0
	Seat Type	03	03	03
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
THIRD	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			
OTHER	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			

Head Restraint Type/Damage by Occupant at This Occupant Position

- (0) No head restraints
- (1) Integral — no damage
- (2) Integral — damaged during accident
- (3) Adjustable — no damage
- (4) Adjustable — damaged during accident
- (5) Add-on — no damage
- (6) Add-on — damaged during accident
- (8) Other Specify: _____

(9) Unknown

Seat Type (this Occupant Position)

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): _____

- (10) Box mounted seat (i.e., van type)
- (99) Unknown

Seat Performance (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed specify: _____
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): _____

(7) Combination of above (specify): _____

(8) Other (specify): _____

(9) Unknown

Seat Orientation (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): _____

(9) Unknown

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE (I.E., UNUSUAL OCCUPANT CONTACT PATTERN)

EJECTION/ENTRAPMENT DATA

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

EJECTION No ☒ Yes ☐

Describe indications of ejection and body parts involved in partial ejection(s):

Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

Ejection

- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, Unknown degree
- (9) Unknown

Ejection Area

- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear

(7) Roof

- (8) Other area (e.g., back of pickup, etc.) (specify):

(9) Unknown

Ejection Medium

- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify):

(5) Integral structure

- (8) Other medium (specify):

(9) Unknown

Medium Status (Immediately Prior to Impact)

- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

ENTRAPMENT No ☒ Yes ☐

Describe entrapment mechanism: _____

Component(s): _____

(Note in vehicle interior diagram)

Appendix F:

NASS CDS INTERVIEW FORM:

CASE VEHICLE DRIVER



INTERVIEW FORM (A)

1. Primary Sampling Unit Number <u>10</u>	Interviewee(s) Role or Name(s): <u>DRIVER of</u>
2. Case Number - Stratum <u>9418</u>	<u>CASE VEHICLE</u>
3. Vehicle Number <u>01</u>	

Review all available information and interview questions prior to conducting interview(s) to ensure the acquisition of all pertinent data.

If the driver was not the person interviewed, was an appointment made for a follow-up interview?

DRIVER'S DESCRIPTION OF ACCIDENT EVENTS

CAN'T Remember Anything About
ACCIDENT

OCCUPANT'S DESCRIPTION OF ACCIDENT EVENTS

GLASSES OR contacts - contacts
VEH. familiarity - very
ROADWAY " - very
Going to p/u GRAND Kids up from DRIVERS ED.
CLASS.

ACCIDENT DIAGRAM



NORTH

The use of this diagram is optional. It may serve to aid in relating interviewee accident trajectory data (i.e., pre-impact to FRP orientations) to identifiable objects in the environment.



INTERVIEW FORM (B)

1. Primary Sampling Unit Number 10
2. Case Number - Stratum 94 18
3. Vehicle Number 01

Interviewee(s) Role or Name(s): DRIVER

ACCIDENT DATA QUESTIONS

1. Can you tell me in which direction you were traveling?

☒ North ☐ South ☐ East ☐ West

(Optional - Where were you coming from or going to?)

2. In which lane were you traveling?

(Note: Lane 1 is designated as the right curb lane.)

☒ (1) ☐ (2) ☐ (3) ☐ (4) ☐ Other (specify):

3. Can you remember your estimated travel speed (in miles per hour) before the accident?

☐ Stopped ☐ 1-10 ☐ 10-20
☐ 20-30 ☒ 30-40 ☐ 40-50
☐ 50-60 ☐ 60-70 ☐ 70+

4. Just before the accident, can you tell me what you were intending to do or were doing?

☒ Going straight ☐ Stopped
☐ slowing ☐ Accelerating
☐ Turning left ☐ Turning right
☐ Changing lanes to left ☐ Changing lanes to right
☐ Backing
☐ Other (specify): _____

5. Did you experience any loss of control due to weather conditions or mechanical problems?

☐ No
☐ Yes (If yes, describe below)

unkn

6. Did you have to take any avoidance actions prior to the accident?

☐ No - Go to question 7
☐ Yes - Go to question 6a

unk

6a. What actions did you take?

☐ Braking with lock-up
☐ Braking without lock-up
☐ Releasing brakes
☐ Accelerating
☐ Steering left
☐ Steering right
☐ Other (specify):

7. Where was your vehicle at the time of the collision?

☐ Original travel lane ☐ Different travel lane
☐ In intersection ☒ Off roadway to right
☐ Off roadway to left
☐ Other (specify): _____

8. Was your travel speed at the time of the collision different from your previous travel speed?

☐ No
☐ Lower
☒ Higher
☒ Unknown

8a. Can you estimate your speed at the time of the collision?

☐ Stopped ☐ 1-10 ☐ 10-20
☐ 20-30 ☐ 30-40 ☐ 40-50
☐ 50-60 ☐ 60-70 ☐ 70+

9. Immediately following the collision, can you describe how your vehicle moved to its stopped position?

NO Don't Remember

10. Can you tell me how many collisions your vehicle had during the accident and the source of the collisions?

2?

1. Primary Sampling Unit Number

10

3. Vehicle Number

01

2. Case Number - Stratum

9418

4. Occupant Number

01

VEHICLE/DRIVER DATA QUESTIONS

1. Can you tell me the year, make, model of your vehicle?

1992 FORD TAURUS
 Year Make Model

2. Can you describe the damage to your vehicle?

FRONT END

3. Was there any previous damage to your vehicle that is not related to this accident?

☒ No
☐ Yes (If "yes", describe below)

4. Did any of the doors (hatch, tailgate) open during the accident?

☒ No
☐ Yes (If "Yes", describe below)

5. Did any of the windows break during the accident?

☒ No
☐ Yes (If "Yes", describe below)

6. Does your vehicle have a glove compartment?

☐ No
☒ Yes

6a. Did the glove compartment door come open during the accident?

☐ No
☐ Yes
☒ Unknown

7. Does your vehicle have "seat belts"?

☐ No (If "No", go to question 7b)
☐ Yes (If "Yes", go to question 7a)

7a. Can you describe the type of seat belt for each seat?

Driver's seat	<input type="checkbox"/> Lap	<input checked="" type="checkbox"/> Lap and shoulder
Front seat middle	<input checked="" type="checkbox"/> Lap	<input type="checkbox"/> Lap and shoulder
Front seat right	<input type="checkbox"/> Lap	<input checked="" type="checkbox"/> Lap and shoulder
Rear seat left	<input type="checkbox"/> Lap	<input checked="" type="checkbox"/> Lap and shoulder
Rear seat middle	<input checked="" type="checkbox"/> Lap	<input type="checkbox"/> Lap and shoulder
Rear seat right	<input type="checkbox"/> Lap	<input checked="" type="checkbox"/> Lap and shoulder

(Identify seat belts for third row and beyond)

7b. Were any of the belts removed or not functional prior to the accident?

☒ No
☐ Yes (If "Yes", specify which belt and describe problem)

8. Do any of the front belts move along a motorized track when the door is opened or closed?

☒ No (If "No", go to question 9)
☐ Yes (If "Yes", what seat location?)
☐ Left Front
☐ Right Front

8a. Were the motorized belts working properly before the accident?

☐ No (If "No", describe condition below)

☐ Yes

8b. Were the belts connected to the track prior to the accident?

☐ No
☐ Yes
☐ Unknown

9. Do any of the front "seat" belts attach to the door such that when the door is opened the belt travels with the door?

☒ No (go to question 10)
☐ Yes

9a. Does this belt come across the _____?

☐ Chest only
☐ Lap and chest

9b. Was this belt connected prior to the accident?

☐ No
☐ Yes
☐ Unknown

AIR BAGS

10. Is your vehicle equipped with a driver's side air bag?

☒ No (go to question 11)
☒ Yes (go to question 10a)
☐ Unknown (go to question 11)

10a. Did the air bag inflate during the accident?

☐ No (go to questions 10b and 10c)
☒ Yes (go to question 10c)

1. Primary Sampling Unit Number

10

3. Vehicle Number

01

2. Case Number - Stratum

9418

4. Occupant Number

01

VEHICLE/DRIVER DATA QUESTIONS (CONTINUED)

10b. Was the air bag wiring disconnected prior to the accident?

☐ No☐ Yes (If "Yes", describe previous condition)☐ Unknown

10c. Was your vehicle involved in any accidents prior to this accident which inflated the air bag?

☐ No (go to question 11)☐ Yes (go to question 10d)☐ Unknown

10d. Was the air bag re-installed after the accident?

☐ No (go to question 11)☐ Yes☐ Unknown

10e. Did the air bag inflate as you expected?

☐ No (If "No" describe below)☐ Yes☒ Unknown

11. Is your vehicle equipped with a passenger side air bag?

☒ No (If "No", go to question 12)☐ Yes (If "Yes", go to question 11a)☐ Unknown (If "Unknown", go to question 12)

11a. Did the passenger air bag inflate during the accident?

☐ No (go to question 11b)☐ Yes (go to question 12)

11b. Was the passenger air bag wiring disconnected prior to the accident?

☐ No☐ Yes (If "Yes", describe below)☐ Unknown

11c. Was the passenger air bag inflated in a previous accident?

☐ No (go to question 12)☐ Yes (go to question 11d)☐ Unknown

11d. Was the passenger air bag re-installed after the accident?

☐ No (go to question 12)☐ Yes☐ Unknown

11e. Did the passenger air bag inflate as you expected?

☐ No (If "No" describe below)☐ Yes☐ Unknown

CHILD SAFETY SEAT

12. Was there a person in a child safety seat in your vehicle?

☒ No (If "No", go to question 13)☐ Yes☐ Unknown

12a. Can you tell me the manufacturer and model of the child safety seat?

12b. Can you describe the type of child safety seat?

☐ Infant☐ Toddler☐ Convertible☐ Booster☐ Other (specify):☐ Unknown

12c. Where was the child safety seat(s) located?

☐ [12] ☐ [13]☐ [21] ☐ [22] ☐ [23]☐ [31] ☐ [32] ☐ [33]☐ [Other] (specify):

12d. Can you tell me which direction the child safety seat was facing prior to the accident?

☐ Rear facing☐ Forward facing,☐ Other (specify):☐ Unknown

12e. Was a seat belt used to hold the child seat in place?

☐ No (If "No", go to question 12g)☐ Yes (If "Yes", go to question 12f)☐ Unknown

12f. Can you describe how the seat belt was secured to the child seat?

☐ Looped through designated rear framing struts?☐ Looped through arm rest slots?☐ Belt across safety shield?☐ Looped through rear frame outside the designated framing struts?☐ Other (specify):☐ Unknown

12g. What was the child safety seat equipped with at the time of purchase? (check all that apply)

☐ Harness☐ Shield☐ Tether strap

If any box is checked, ask questions 12h - 12i.

1. Primary Sampling Unit Number

10

3. Vehicle Number

01

2. Case Number - Stratum

9418

4. Occupant Number

01

VEHICLE/DRIVER DATA QUESTIONS (CONTINUED)

12h. Were any of these items added after you owned the child safety seat?

☐ Yes

(specify _____)

☐ No☐ Unknown

12i. Were any of these items used during the accident?

☐ Yes (If "Yes", check all that apply)☐ Harness☐ Shield☐ Tether strap)☐ No☐ Unknown

OPTIONAL

If you do not know where the vehicle is or if the owner's permission is needed for inspection.

15. Do you know where the vehicle is currently located?

16. May I take a look at your vehicle to assess the damage?

☐ No☐ Yes

DRIVER ONLY

17. What race do you consider yourself?

☒ White☐ Black☐ American Indian, Eskimo or Aleut, Asian or Pacific Islander☐ Other (specify: _____)☐ Unknown.

18. Are you of hispanic origin?

☒ No☐ Yes

CARGO WEIGHT AND MILEAGE

13. Was there any cargo in your vehicle?

☒ No (If "No", go to question 14)☐ Yes (If "Yes", go to question 13a)☐ Unknown

13a. Can you estimate the weight of the cargo?

0 lbs.

Cargo description

14. Can you tell me the mileage on the vehicle?

27000 or miles37000

1. Primary Sampling Unit Number 10 3. Vehicle Number 01
 2. Case Number - Stratum 9418 4. Occupant Number 01

VEHICLE ROLLOVER/FIRE QUESTIONS

ROLLOVER QUESTIONS

1. Did the vehicle rollover during the accident?
☒ No (If "No", go to question 2.)
☐ Yes
☐ Unknown (skip to question 2)
- 1a. Describe where the rollover began.
☐ On roadway
☐ On shoulder
☐ On roadside or median
☐ Unknown
- 1b. What caused the vehicle to rollover?
☐ Other vehicle (specify vehicle number): _____
☐ Contacted object (specify): _____
☐ Other cause (specify): _____
☐ Unknown
- 1c. Describe which direction the vehicle rolled.
☐ Toward the right
☐ Toward the left
☐ End-over-end
☐ Unknown
- 1d. Estimate the number of sides (including the top and bottom) which contacted the ground during the rollover?
☐ 1 side
☐ 2 sides
☐ 3 sides
☐ 4 sides
☐ Unknown
- 1e. Did the vehicle roll over more than one complete turn (more than 4 sides)?
☐ No (If "No", go to question 1g.)
☐ Yes
- 1f. Estimate the number of complete turns.
☐ No
☐ Yes (specify): _____
☐ Unknown
- 1g. When the vehicle stopped rolling over, which side of the vehicle was in contact with the ground?
☐ Left side
☐ Right side
☐ Top
☐ Wheels
☐ Unknown

FIRE QUESTIONS

2. Did the vehicle experience a fire?
☒ No (If "No", skip to Occupant Data Questions)
☐ Yes
☐ Unknown
- 2a. Describe where the fire started or where smoke was first seen.
☐ Under the hood
☐ Behind the instrument panel
☐ In the passenger compartment
☐ In the trunk/cargo area
☐ Under the vehicle
☐ From other involved vehicle
☐ Unknown
- 2b. Did the fire start with the electrical system?
☐ No
☐ Yes (specify): _____
☐ Unknown
- 2c. Did the fire start with the fuel system?
☐ No (If "No", skip to Occupant Data Questions)
☐ Yes (go to question 2d)
☐ Unknown
- 2d. Describe which part of the fuel system that may have been involved?
☐ No
☐ Yes (specify): _____
 _____ Fuel tank
 _____ Fuel lines
 _____ Engine compartment (specify component if known)
☐ Unknown

(Go To Occupant Data Questions)

COMMENTS ON ROLLOVERS AND FIRES

1. Primary Sampling Unit Number

10

3. Vehicle Number

01

2. Case Number - Stratum.

9418

4. Occupant Number

01

OCCUPANT DATA QUESTIONS

1. Was there anyone else in your vehicle at the time of the accident?

- ☒ No (If "No", go to question 4)
☐ Yes (If "Yes", specify number in question 2 below and then go to question 3)
☐ Unknown

2. How many?

- [1] One other person
 [2] Two other persons
 [3] Three other persons
 [4] Four other persons
 [5] Five other persons
 [6] Six other persons
 [7] Seven or more other persons
 (specify number:)

3. Where was this person sitting? (Circle seating positions)

- | | | |
|----------------------|------|------|
| | [12] | [13] |
| [21] | [22] | [23] |
| [31] | [32] | [33] |
| [] Other (specify:) | | |

OCCUPANT CHARACTERISTICS

4. Can I have your (his/her) height, weight, age, and sex?

Height 5'6 Weight 110 Age 62Sex: [] Male ☒ Female

OCCUPANT POSTURE

5. Can you tell me how you (he/she was) were sitting in your vehicle?

unk

5a. Can you describe the location of your (his/her) feet just prior to the collision?

unk

5b. Can you describe the location of your (his/her) arms?

Both hands on the wheel

5c. Was your (his/her) back resting against the seat back rest?

- ☒ No (If "No", describe the position)
not completely
☐ Yes
☐ Unknown

5d. Were you (Was he/she)

- ☒ Sitting upright or
☐ Leaning to left side, or
☐ Leaning to right side?

OCCUPANT EJECTION

6. Were you (Was he/she) or any part of your (his/her) body thrown from the vehicle during the accident?

- ☒ No (If "No", go to question 7)
☐ Yes (If "Yes", go to question 6a)
☐ Unknown

6a. Can you remember out of what area of the vehicle you were (he/she was) thrown?

- [] No
☐ Yes (Describe:)

OCCUPANT RESTRAINT

7. Were you (Was he/she) wearing a seat belt just before the accident?

- [] No (If "No", go to question 8)
☒ Yes
☐ Unknown

7a. Were you (Was he/she) wearing the

- [] Lap belt?
☒ Lap and Shoulder belt?
☐ Shoulder belt?

7b. Can you describe how you were (he/she was) wearing the lap belt?

- [] Across the stomach
☐ Low on lap
☐ Other (specify:)
☒ Unknown

7c. Can you describe how you were (he/she was) wearing the shoulder belt?

- ☒ Over the shoulder
☐ Under the arm
☐ Behind the back
☐ Behind the seat
☐ Other (specify:)

7d. Did any part of the belt system break or tear?

- ☒ No
☐ Yes (If "Yes", describe)
☐ Unknown

OCCUPANT ENTRAPMENT

8. Were you (Was he/she) trapped in the vehicle?

- [] No
☐ Yes (If "Yes", describe)
☒ Unknown unconscious.

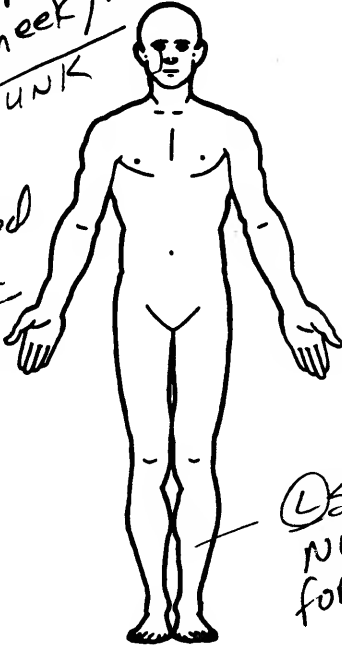
PSU Number 10Case Number-Stratum 9418Vehicle Number 01Occupant Number 01

INJURY DATA FROM INTERVIEWEE(S)

Indicate the Location, Lesion, Detail, and Source of all injuries. Specify interviewee(s): DRIVER

Deep
Laceration
⑧ cheek/nose
UNK

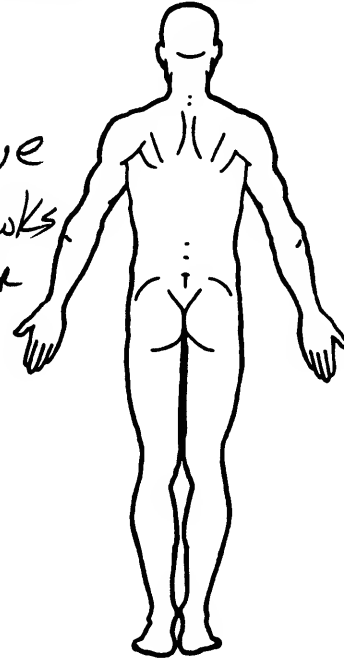
⑧ eye
detached
Retina
UNK



SOFT TISSUE/INTERNAL INJURIES

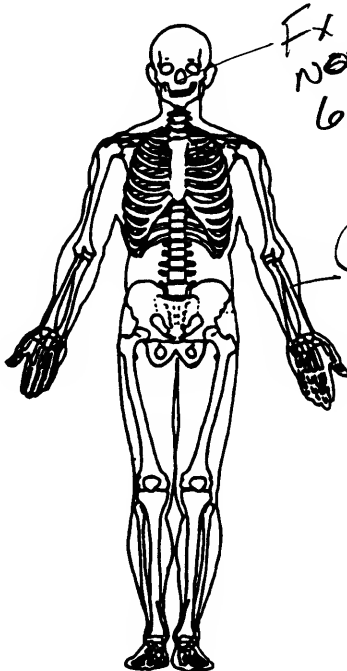
HEAD
injuries

non responsive
approx 5 1/2 wks
on respirator



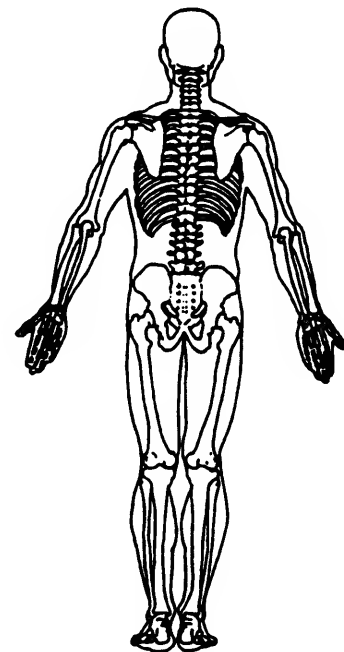
⑧ shin
numbness
for a while

SKELETAL INJURIES



Fx
NOSE
6 PLACES
UNK

⑧ FOREARM
Fx
UNK



1. Primary Sampling Unit Number

10

3. Vehicle Number

01

2. Case Number - Stratum

9418

4. Occupant Number

01

OCCUPANT INJURY DATA QUESTIONS

1. Were you (Was he/she) injured?

☐ No (If "No", skip to question 7)☒ Yes (If "Yes", complete Occupant Injury Questions)☐ Unknown

2. Did you (he/she) receive any cuts, abrasions, or bruises?

☐ No (go to question 3)☒ Yes (If "Yes", record the exact location(s) and size on the manikin(s).)☐ Unknown

2a. Do you know what caused your (his/her) injury(s)?

☐ No☐ Yes (If "Yes", specify the component(s) or object(s) on the manikin(s).)☒ Unknown

3. Did you (he/she) experience any broken bones?

☐ No (If "No", go to question 4)☒ Yes (If "Yes", record the exact location(s) and type of fracture(s) on the manikin(s), and then go to question 3a.)☐ Unknown

3a. Do you know what caused the injury(s)?

☐ No☐ Yes (If "Yes", specify the component(s) or object(s) on the manikin(s).)☒ Unknown

4. Did you (he/she) injure your (his/her) head? (skull/brain?)

☐ No (If "No", go to question 5)☒ Yes (If "Yes", describe the type of injury(s) on the manikin(s), then go to question 4a.)☐ Unknown

4a. Do you know what caused the injury(s)?

☐ No☐ Yes (If "Yes", specify the component(s) on the manikin(s).)☒ Unknown

5. Were any of your (his/her) internal organs injured?

☒ No (If "No", go to question 6)☐ Yes (If "Yes", thoroughly describe the type of injury(s) and specify the internal organ(s) injured on the manikin(s), and then go to question 5a.)☐ Unknown

5a. Do you know what caused this injury?

☐ No☐ Yes (If "Yes", specify the component(s) on the manikin(s).)☐ Unknown

6. Did you (he/she) suffer any joint sprains or muscle strains?

☒ No (If "No", go to question 7)☐ Yes (If "Yes", specify on the manikin(s), and then go to question 6a.)☐ Unknown

6a. Do you know what caused the injury(s)?

☐ No☐ Yes (If "Yes", specify the component(s) on the manikin(s).)☐ Unknown

7. Did you (he/she) receive any treatment?

☐ No (If "No", go to question 8)☒ Yes (If "Yes", go to question 7a or return to question 2.)

7a. Were you (Was he/she) treated by (check all that apply):

☐ Hospital/trauma center? (specify hospital name):Hospital☐ Medical clinic☐ Out patient surgery? (specify medical facility):☐ Paramedics or first aid at the scene?☐ A doctor in his/her office?☐ Treated at home?☐ None of the above, go to question 8.

7b. Were you (Was he/she) treated and released from the emergency room?

☒ No (If "No", go to question 7c.)☐ Yes (If "Yes", go to question 7e.)

7c. Were you (Was he/she) hospitalized?

☐ No (If "No", give an explanation)☒ Yes (If "Yes", go to question 7d.)

7d. How many days were you (was he/she) in the hospital?

days

Get out for 1HR visits etc

from

Released
(inpatient)

1. Primary Sampling Unit Number

10

3. Vehicle Number

01

2. Case Number - Stratum

9418

4. Occupant Number

01

OCCUPANT INJURY DATA QUESTIONS (CONTINUED)

7e. Have you (Has he/she) received any follow-up treatment?

☐ No☒ Yes (If "Yes", describe:)REHAB☐ Unknown

7f. In order to achieve the best possible scientific data regarding your (his/her) injury(s), we need to obtain a copy of your (his/her) medical reports. Would you (he/she) sign a medical release form?

☐ No☒ Yes (If "Yes", mail or present the form for signature.)

8. Have you (he/she) lost any days from work or school (college)?

☐ No☒ Yes (If "Yes", determine the number of days lost) (Specify:)☐ Not working prior to the accident☐ Unknownnot since accident

Appendix G:

NASS CDS OCCUPANT ASSESSMENT FORM:

CASE VEHICLE DRIVER



U.S. Department of Transportation
National Highway Traffic Safety
Administration

OCCUPANT ASSESSMENT FORM

Form Approved
O.M.B. No. 2127-0021

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

2. Case Number - Stratum

3. Vehicle Number

4. Occupant Number

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

(1) Male

(2) Female

(9) Unknown

7. Occupant's Height

Code actual height to the nearest centimeter.

(999) Unknown

46 inches X 2.54 = 116.7⁶⁴ centimeters

8. Occupant's Weight

Code actual weight to the nearest kilogram.

(999) Unknown

110 pounds X .4536 = 49.89 kilograms

9. Occupant's Role

(1) Driver

(2) Passenger

(9) Unknown

OCCUPANT'S SEATING

10. Occupant's Seat Position

Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

(0) Normal posture

Abnormal posture

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front of seat

(8) Other abnormal posture (specify):

(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection 0

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

13. Ejection Area 0

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)
(specify): _____
- (9) Unknown

14. Ejection Medium 0

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): _____
- (5) Integral structure
- (8) Other medium (specify): _____
- (9) Unknown

15. Medium Status (Immediately Prior To Impact) 0

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

16. Entrapment 0

(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)

- (0) Not entrapped
- (1) Entrapped
- (9) Unknown

RESTRAINT SYSTEM EVALUATION

17. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): _____

(9) Unknown _____

18. Manual (Active) Belt System Use 04

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): _____

(02) Shoulder belt _____

(03) Lap belt _____

(04) Lap and shoulder belt _____

(05) Belt used—type unknown _____

(08) Other belt used (specify): _____

(12) Shoulder belt used with child safety seat _____

(13) Lap belt used with child safety seat _____

(14) Lap and shoulder belt used with child safety seat _____

(15) Belt used with child safety seat—type unknown _____

(18) Other belt used with child safety seat (specify): _____

(99) Unknown if belt used _____

19. Proper Use of Manual (Active) Belts 1

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____

(8) Other improper use of manual belt system (specify): _____

(9) Unknown _____

20. Manual (Active) Belt Failure Modes 1*During Accident*

- (0) No manual belt used
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____

(6) Broken retractor _____

(7) Combination of above (specify): _____

(8) Other manual belt failure (specify): _____

(9) Unknown _____

21. Air Bag System Availability/Function 1

- (0) Not equipped/not available
- (1) Air bag

Non-functional

(2) Air bag disconnected (specify): _____

(3) Air bag not reinstalled _____

(9) Unknown _____

22. Air Bag System Deployment 1

- (0) Not equipped/not available
- (1) Air bag deployed during accident (as a result of impact)
- (2) Air bag deployed inadvertently just prior to accident
- (3) Air bag deployed, accident sequence undetermined
- (4) Nondeployed
- (5) Unknown if deployed
- (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (9) Unknown

23. Are There Indications of Air Bag System Failure? 1

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): _____
- (9) Unknown _____

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use 4

- (0) None used
- (1) Police did not indicate restraint use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Other or automatic restraint (specify): _____

(8) Restrained, type unknown _____

(9) Police indicated "unknown" _____

HEAD RESTRAINT AND SEAT EVALUATION

25. Head Restraint Type/Damage by Occupant
at This Occupant Position3

- (0) No head restraints
- (1) Integral—no damage
- (2) Integral—damaged during accident
- (3) Adjustable—no damage
- (4) Adjustable—damaged during accident
- (5) Add-on—no damage
- (6) Add-on—damaged during accident
- (8) Other (specify): _____

(9) Unknown

26. Seat Type (this Occupant Position)

02

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): _____

(10) Box mounted seat (i.e., van type)

(99) Unknown

27. Seat Performance (this Occupant Position)

1

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed (specify): _____
- (4) Seat track/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): _____

(7) Combination of above (specify): _____

(8) Other (specify): _____

(9) Unknown

CHILD SAFETY SEAT

28. Child Safety Seat Make/Model 000

(000) No child safety seat

Applicable codes are found in your NASS CDS
Data Collection, Coding and Editing

(950) Built-in child safety seat

(997) Other make/model (specify):

(998) Unknown make/model

(999) Unknown if child safety seat used

29. Type of Child Safety Seat 0

(0) No child safety seat

(1) Infant seat

(2) Toddler seat

(3) Convertible seat

(4) Booster seat

(7) Other type child safety seat (specify):

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

30. Child Safety Seat Orientation 00

(00) No child safety seat

Designed for Rear Facing for This Age/Weight

(01) Rear facing

(02) Forward facing

(08) Other orientation (specify):

(09) Unknown orientation

Designed For Forward Facing for This Age/Weight

(11) Rear facing

(12) Forward facing

(18) Other orientation (specify):

(19) Unknown orientation

*Unknown Design or Orientation For This
Age/Weight, or Unknown Age/Weight*

(21) Rear facing

(22) Forward facing

(28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage 0032. Child Safety Seat Shield Usage 0033. Child Safety Seat Tether Usage 00Note: Options below applicable to
Variables OA31-OA33.

(00) No child safety seat

Not Designed With Harness/Shield/Tether(01) After market harness/shield/tether
added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market
harness/shield/tether added(09) Unknown if harness/shield/tether
added or used*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES

34. Injury Severity (Police Rating) 2

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

35. Treatment - Mortality 3

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):

Nonfatal

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (8) Treatment - other (specify):
- (9) Unknown

36. Type Of Medical Facility (for Initial Treatment) 1

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):
- (9) Unknown

37. Hospital Stay 16

- (00) Not Hospitalized
- Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

16 primary care
102 Rehabilitation

38. Working Days Lost 61

- Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

STOP - GO TO VARIABLE 44 ON PAGE 7**VARIABLES 39 THROUGH 43 ARE COMPLETED BY THE ZONE CENTER**39. Time to Death 00

- Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)
- (00) Not fatal
- (96) Fatal - ruled disease
- (99) Unknown

40. 1st Medically Reported Cause of Death 0041. 2nd Medically Reported Cause of Death 0042. 3rd Medically Reported Cause of Death 00

- Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
- (00) Not fatal or no additional causes
- (96) Mode of death given but specific injuries are not linked to cause of death. (specify):

- (97) Other result (includes fatal ruled disease) (specify):

- (99) Unknown

43. Number of Recorded Injuries for This Occupant 19

- Code the actual number of injuries recorded for this occupant.
- (00) No recorded injuries
- (97) Injured, details unknown
- (99) Unknown if injured

AUTOMATIC BELT SYSTEM**44. Automatic (Passive) Belt System Availability/Function** 0

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

Non-functional

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

45. Automatic (Passive) Belt System Use 0

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): _____

- (3) Automatic belt use unknown
- (9) Unknown

46. Automatic (Passive) Belt System Type 0

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

47. Proper Use of Automatic (Passive) Belt System 0

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

Automatic Belt Used Improperly

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____

- (8) Other improper use of automatic belt system (specify): _____
- (9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident 0

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____
- (6) Broken retractor
- (7) Combination of above (specify): _____
- (8) Other automatic belt failure (specify): _____
- (9) Unknown

49. Seat Orientation (this Occupant Position) 1

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): _____
- (9) Unknown

Check the Primary Source Used In Determining Belt Use.

- [] Not equipped/not available/destroyed or rendered inoperative
- [] Vehicle inspection
- [] Official injury data
- [] Driver/occupant interview
- [x] Other (specify): Witness Statement
- [] Unknown if belt used

ARE ALL APPLICABLE MEDICAL RECORDS INCLUDED WITH INITIAL SUBMISSION?

NO [] YES [x]

UPDATE CANDIDATE?

NO [x] YES []

STOP - VARIABLES 50 THROUGH 53 ARE COMPLETED BY THE ZONE CENTER**TRAUMA DATA**

50. Glasgow Coma Scale (GCS) Score 07
(at Medical Facility)
(00) Not injured
(01) Injured - not treated at medical facility
(02) No GCS Score at medical facility
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.
(97) Injured, details unknown
(99) Unknown if injured
51. Was the Occupant Given Blood? 2
(1) No - blood not given
(2) Yes - blood given
(specify units): 4
(9) Unknown if blood given
52. Arterial Blood Gases (ABG) - HCO_3 16
(00) Not injured
(01) Injured, ABGs not measured or reported
(02-50) Code the actual value of the HCO_3
(96) ABGs reported, HCO_3 unknown
(97) Injured, details unknown
(99) Unknown if injured

BELT USE DETERMINATION

53. Primary Source of Belt Use Determination 8
(0) Not equipped/not available/destroyed or rendered inoperative
(1) Vehicle inspection
(2) Official injury data
(3) Driver/occupant interview
(8) Other (specify): Witness Statement
(9) Unknown if belt used

Appendix H:

NASS CDS OCCUPANT INJURY FORM:

CASE VEHICLE DRIVER



U.S. Department of Transportation
National Highway Traffic Safety
Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

2. Case Number - Stratum

3. Vehicle Number

4. Occupant Number

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

Source of Injury Data	A.I.S. - 90						Injury Source	Injury Confidence Level	Direct/Indirect Injury	Occupant Area Intrusion Number	
	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect					
Concussion 1st	5. 2	6. 1	7. 6	8. 02	9. 14	10. 5	11. 0	12. 04	13. 2	14. 1	15. 00
Cerebral Contusion 2nd (R)	16. 2	17. 1	18. 4	19. 06	20. 14	21. 3	22. 1	23. 04	24. 2	25. 1	26. 00
Intraventricular hemorrhage 3rd (R)	27. 2	28. 1	29. 4	30. 06	31. 78	32. 4	33. 1	34. 04	35. 2	36. 1	37. 00
Subarachnoid hemorrhage 4th	38. 2	39. 1	40. 4	41. 06	42. 84	43. 3	44. 1	45. 04	46. 2	47. 1	48. 00
Open Fx (R) maxilla 5th	49. 2	50. 2	51. 5	52. 08	53. 00	54. 2	55. 1	56. 05	57. 1	58. 1	59. 00
Comminuted Nasal Fx 6th	60. 2	61. 2	62. 5	63. 10	64. 04	65. 2	66. 4	67. 05	68. 1	69. 1	70. 00
Fx (R) wrist 7th	71. 2	72. 7	73. 5	74. 20	75. 02	76. 2	77. 2	78. 04	79. 2	80. 1	81. 00
(R) Retinal Detachment 8th	82. 2	83. 2	84. 4	85. 10	86. 02	87. 2	88. 1	89. 45	90. 2	91. 1	92. 00
Hyphema (R) eye 9th	93. 2	94. 2	95. 4	96. 06	97. 04	98. 1	99. 1	100. 45	101. 2	102. 1	103. 00
Vitreous hemorrhage (R) eye 10th	104. 2	105. 2	106. 4	107. 16	108. 99	109. 1	110. 1	111. 45	112. 2	113. 1	114. 00

OCCUPANT INJURY DATA

Source of Injury Data	A.I.S. - 90					Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity			
① periorbital hematoma 11th	<u>2</u>	<u>2</u>	<u>9</u>	<u>74</u>	<u>02</u>	<u>1</u>	<u>1</u>	<u>05</u> <u>2</u> <u>1</u> <u>00</u>
② periorbital hematoma 12th	<u>2</u>	<u>2</u>	<u>9</u>	<u>74</u>	<u>02</u>	<u>1</u>	<u>2</u>	<u>05</u> <u>2</u> <u>1</u> <u>00</u>
Hematoma ③ 13th forehead	<u>2</u>	<u>2</u>	<u>9</u>	<u>04</u>	<u>02</u>	<u>1</u>	<u>7</u>	<u>04</u> <u>1</u> <u>1</u> <u>00</u>
Laceration ④ 14th lip	<u>2</u>	<u>2</u>	<u>9</u>	<u>06</u>	<u>02</u>	<u>1</u>	<u>8</u>	<u>05</u> <u>1</u> <u>1</u> <u>00</u>
Eccymosis ⑤ 15th Face	<u>2</u>	<u>2</u>	<u>9</u>	<u>04</u>	<u>02</u>	<u>1</u>	<u>9</u>	<u>06</u> <u>2</u> <u>1</u> <u>00</u>
Eccymosis ⑥ 16th superior chest	<u>2</u>	<u>4</u>	<u>9</u>	<u>04</u>	<u>02</u>	<u>1</u>	<u>4</u>	<u>04</u> <u>2</u> <u>1</u> <u>00</u>
Contusion ⑦ 17th upper abdomen	<u>6</u>	<u>5</u>	<u>9</u>	<u>04</u>	<u>02</u>	<u>1</u>	<u>7</u>	<u>41</u> <u>2</u> <u>1</u> <u>00</u>
Hematoma ⑧ 18th wrist	<u>6</u>	<u>7</u>	<u>9</u>	<u>04</u>	<u>02</u>	<u>1</u>	<u>1</u>	<u>04</u> <u>3</u> <u>1</u> <u>00</u>
19th	<u>3</u>	<u>7</u>	<u>9</u>	<u>04</u>	<u>02</u>	<u>1</u>	<u>2</u>	<u>04</u> <u>2</u> <u>1</u> <u>00</u>
20th	—	—	—	—	—	—	—	—
21st	—	—	—	—	—	—	—	—
22nd	—	—	—	—	—	—	—	—
23rd	—	—	—	—	—	—	—	—
24th	—	—	—	—	—	—	—	—
25th	—	—	—	—	—	—	—	—

BODY DIAGRAMS AND MEDICAL RECORDS
FROM
ORIGINAL MEDICAL FACILITY SUBMISSION¹³

¹³ Specifically, these body diagrams are based on the medical records that this contractor obtained from the initial treatment medical facility as part of their original records submission.

OFFICIAL INJURY DATA – SOFT TISSUE INJURIES

- Found slumped over steering wheel (HP)
- Top portion of steering wheel was bent (HP)

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

- Large protuberant hematoma over (R) forehead (HP, CN4)

- Small hypolema (R) eye (CN2)

- (R) retinal detachment, partial (DS, FS, CN3², CN3³, CN4)

- Orbital contusion (R) (HP)

- Bilateral hematomas in eyes (CN1)

- Vitreous hemorrhage (R) eye (CN3²)

- Lacerations facial (multiple) (DS, CN4)

- Significant facial ecchymosis (CN2)

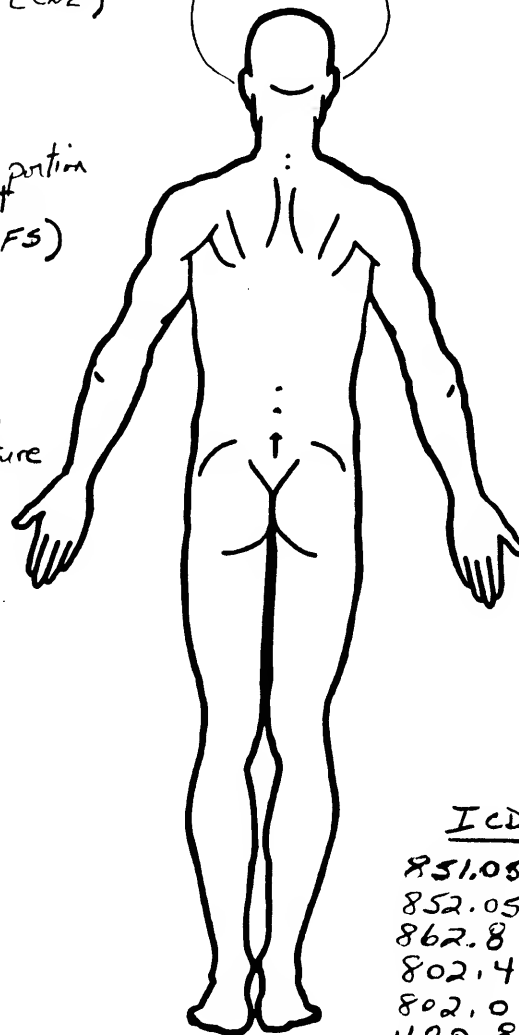
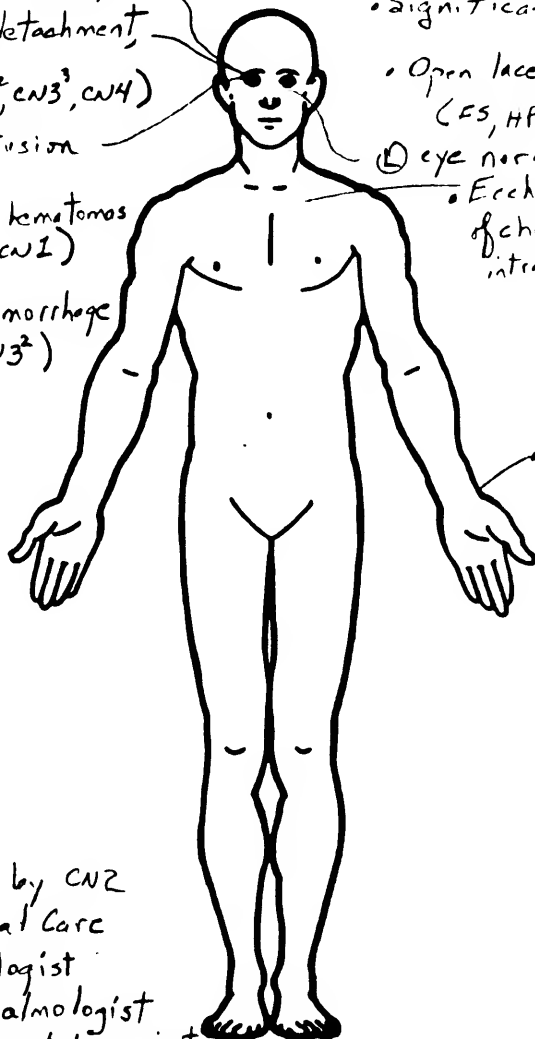
- Open laceration (R) cheek (FS, HP)

- (L) eye normal (CN3²)

- Ecchymosis over superior portion of chest without significant intrathoracic injury (HP, FS)

- hematoma and hemorrhage over (L) wrist, but no fracture (HP)

- Blood both ear canals (CN2, CN4)



DS = written by CN2

CN2 = Critical Care

CN2 = Neurologist

CN3 = Ophthalmologist

(3 Consultation visits)

CN4 = Internal Medicine

(infectious disease consult)

ICD-9-CM

851.05	873.51
852.05	361.04
862.8	814.01
802.4	
802.0	
480.8	
482.82	

ORIGINAL MEDICAL

FACILITY SUBMISSION

SOURCE OF INJURY DATA

OFFICIAL

- (1) Autopsy records with or without hospital/medical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

UNOFFICIAL

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify): _____
- (9) Police

INJURY SOURCE

FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify): _____
- (19) Other front object (specify): _____

LEFT SIDE

- (20) Left side interior surface excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar
- (23) Left B-pillar
- (24) Other left pillar (specify): _____

- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (27) Other left side object (specify): _____

- (28) Left side window sill

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A (A1/A2)-pillar
- (33) Right B-pillar
- (34) Other right pillar (specify): _____

- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (37) Other right side object (specify): _____

- (38) Right side window sill

INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar or door frame attachment point
- (43) Other restraint system component (specify): _____
- (44) Head restraint system
- (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
- (46) Other occupants (specify): _____
- (47) Interior loose objects
- (48) Child safety seat (specify): _____
- (49) Other interior object (specify): _____

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

- (60) Backlight (rear window)

- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): _____

EXTERIOR OF OCCUPANT'S VEHICLE

- (65) Hood
- (66) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or tires (specify): _____
- (68) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify): _____

- (73) Hood
- (74) Hood ornament
- (75) Windshield, roof rail, A-pillar
- (76) Side surface
- (77) Side mirrors
- (78) Other side protrusions (specify): _____

- (79) Rear surface
- (80) Undercarriage
- (81) Tires and wheels
- (82) Other exterior of other motor vehicle (specify): _____

- (83) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (84) Ground
- (85) Other vehicle or object (specify): _____
- (86) Unknown vehicle or object

NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify): _____
- (93) Air bag exhaust gases
- (97) Injured, unknown source

INJURY SOURCE CONFIDENCE LEVEL

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

DIRECT/INDIRECT INJURY

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

OCCUPANT INJURY CLASSIFICATION

Body Region

- (1) Head
- (2) Face
- (3) Neck
- (4) Thorax
- (5) Abdomen
- (6) Spine
- (7) Upper Extremity
- (8) Lower Extremity
- (9) Unspecified

Type of Anatomic Structure

- (1) Whole Area
- (2) Vessels
- (3) Nerves
- (4) Organs (includes muscles/ligaments)
- (5) Skeletal (includes joints)
- (6) Head - LOC
- (9) Skin

Specific Anatomic Structure

- Whole Area
- (02) Skin - Abrasion
 - (04) Skin - Contusion
 - (06) Skin - Laceration
 - (08) Skin - Avulsion
 - (10) Amputation
 - (20) Burn
 - (30) Crush
 - (40) Degloving
 - (50) Injury - NFS
 - (90) Trauma, other than mechanical

Head - LOC

- (02) Length of LOC
- (04, 06, 08) Level of Consciousness
- (10) Concussion

Spine

- (02) Cervical
- (04) Thoracic
- (06) Lumbar

Vessels, Nerves, Organs, Bones,

Joints are assigned consecutive two digit numbers beginning with 02.

Level of Injury

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

Abbreviated Injury Scale

- (1) Minor injury
- (2) Moderate injury
- (3) Serious injury
- (4) Severe injury
- (5) Critical injury
- (6) Maximum (untreatable)
- (7) Injured, unknown severity

Aspect

- (1) Right
- (2) Left
- (3) Bilateral
- (4) Central
- (5) Anterior
- (6) Posterior
- (7) Superior
- (8) Inferior
- (9) Unknown
- (0) Whole region

OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

☐ No
☒ Yes

Blood Alcohol Level (mg/dl)

BAL = ____

Glasgow Coma Scale Score

GCSS = ____

Units of Blood Given

Units = 2 Packed red blood cells (HP)

Arterial Blood Gases

(CN1) { pH = 7.67
PO₂ = 420 - something
PCO₂ = 15
HCO₃ = ____

• severe metabolic respiratory alkalosis (CN1)

Restrained (HP, CN2)

Air Bag inflated (HP, CN1, CN2)

• Minimal damage (HP, CN1) to automobile

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

• Fx Malar/maxillary (closed)

(FS, HP)

• Evidence of orbital Fracture - CTS can (CN2')

Closed Fx nasal bone

(FS, HP, CN1)

(appears to be crushed - CN1)

• No skull fractures (CN2)

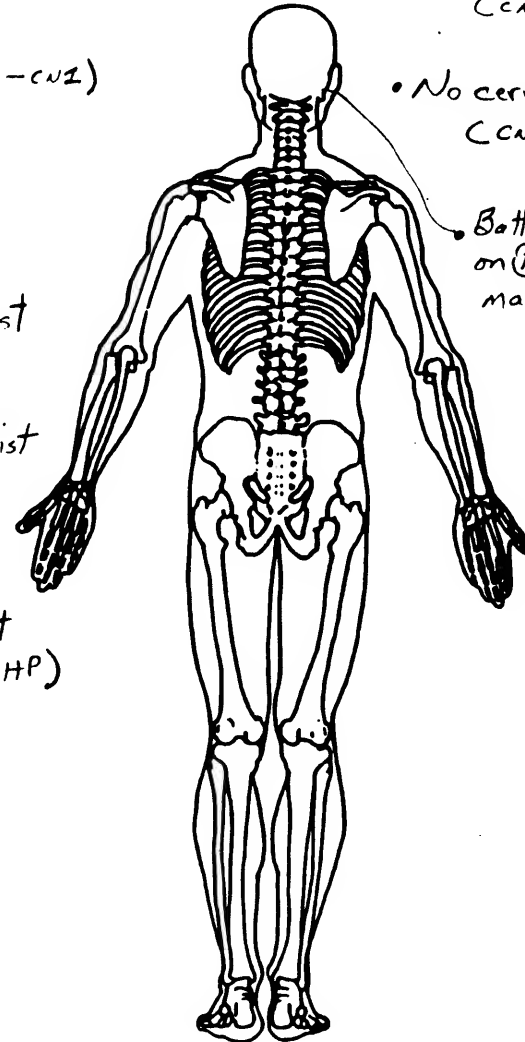
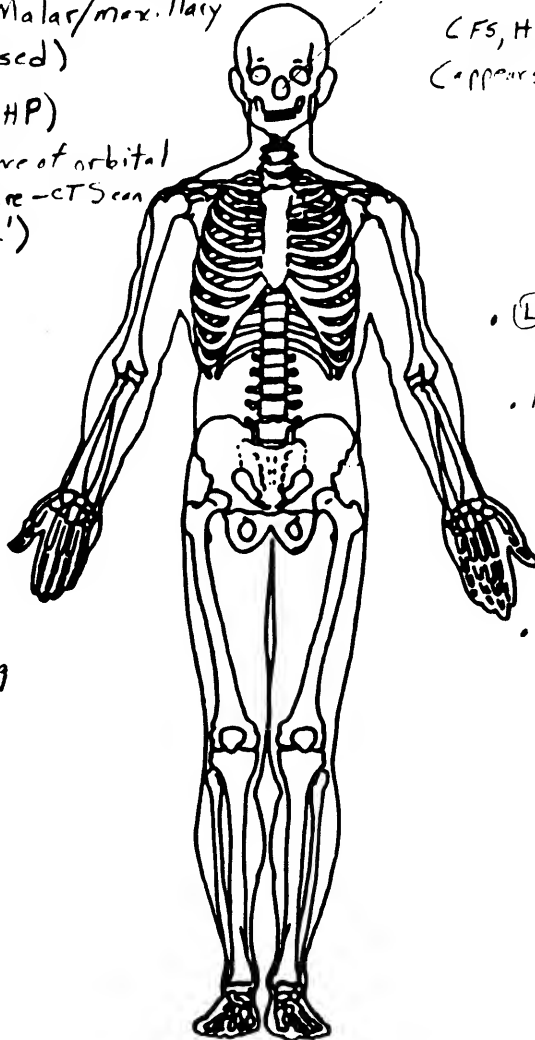
• No cervical Fxs (CN2)

• Battle sign noted on R over R mastoid process (CN4)

• (L) forearm in cast (CN4)

• Fx (L) forearm (navicular wrist bone - closed) (DS, FS, CN4)

• X-ray (L) wrist is normal (HP)



ORIGINAL MEDICAL FACILITY SUBMISSION

OFFICIAL INJURY DATA — INTERNAL INJURIES

• Hyperventilation 2° to acute brain injury (CN1)

• No midline shift but (R) lateral ventricle was effaced [on CT Scan] (CN2)

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Neuro: Purposeful to pain but did not follow commands (DS, CN2)

Subarachnoid hemorrhage on CT Scan (DS, FS, CN2, CN4)

• Intraventricular hemorrhage on CT Scan (DS, CN2)

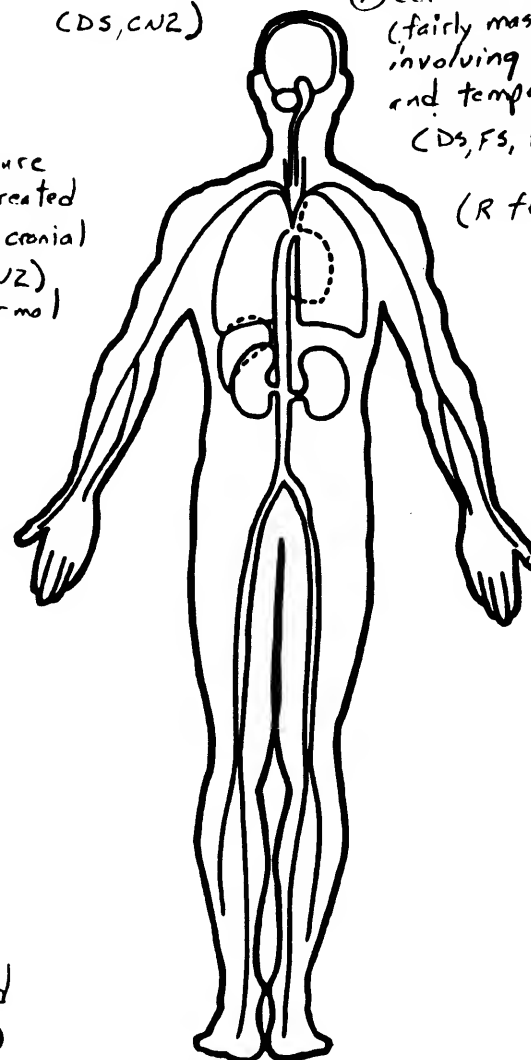
(R) cerebral contusion (CT Scan) (fairly massive + HP) involving (R) parietal and temporal lobes (DS, FS, HP, CN2, CN4)

(R frontal lobe too! -CN2)

• Spontaneously moving all extremities + occasionally attempts to get up, but not responsive (HP)

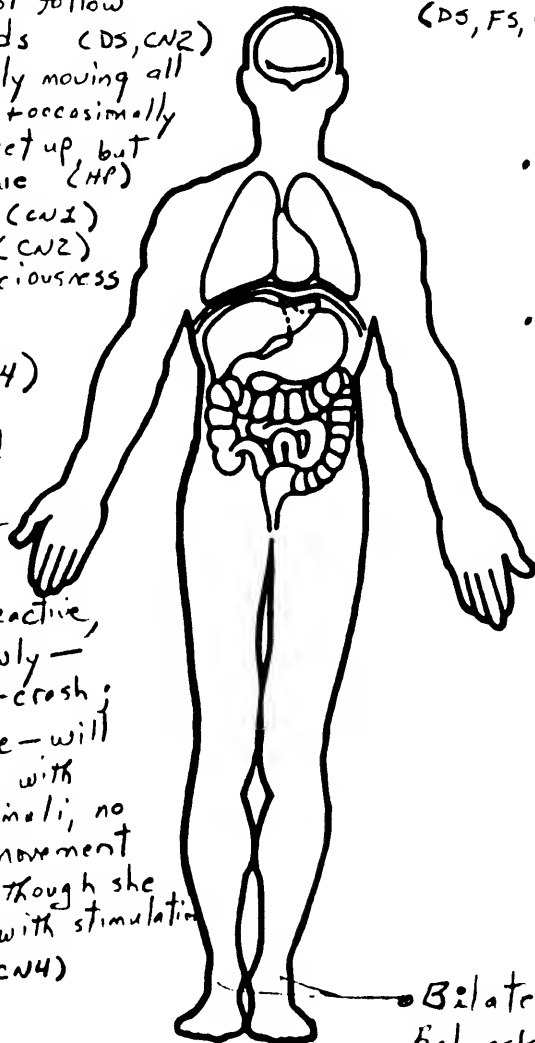
• Intracranial pressure monitor inserted, treated for increased intracranial pressure (DS, CN2)
• Pressure within normal range (CN2)

• Unconscious (CN2)
• Stuporous (CN2)
• Loss of consciousness > 24 hours (FS, CN3, CN4)



• (R) pupil fixed and dilated day of transfer (CN3)

• (R) pupil nonreactive, (L) reacts slowly — 10th day post-crash; Unresponsive — will respond on (L) with noxious stimuli; no purposeful movement noted on (R), though she does posture with stimulation on (R) (CN4)



• Bilateral foot drop and Babinski's noted (CN4)

ORIGINAL MEDICAL
FACILITY SUBMISSION

Hospital

Final Summary

Date of Admission [REDACTED] 94
Date of Discharge [REDACTED] 94
Attending Physician(s) [REDACTED]
Consulting Physician(s) [REDACTED]
[REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED]

Admission #
DOB:

PRINCIPAL DIAGNOSIS: Right cerebral contusion with subarachnoid hemorrhage
SECONDARY DIAGNOSES: Facial laceration
Right retinal detachment
Fractured left forearm
PROCEDURES: Tracheotomy, repair of facial lacerations and insertion of PEG tube

SUMMARY:

(DISCHARGE SUMMARY MUST INCLUDE: 1--Why Admitted; 2--Pertinent Findings; 3--Treatment; 4--Condition on Discharge; 5--Follow-Up Instructions to Patient)

This 62 year old woman was the solo occupant of an auto which went over a hill, over an embankment. Air bag did inflate but she was injured. She was evaluated in the ER by Dr. [REDACTED]

On exam on admission she was purposeful to pain in all 4 extremities but did not follow commands. CT showed traumatic subarachnoid hemorrhage and interventricular hemorrhage. Dr. [REDACTED] repaired the multiple facial lacerations. Dr. [REDACTED] was consulted for critical care consultation. Intracranial pressure monitor was inserted. She was treated with usual treatment for increased intracranial pressure. Ophthalmology consultation was obtained by Dr. [REDACTED]. Dr. [REDACTED] saw her and placed a PEG tube for nutrition. She had mild diabetes insipidus following the injury. Orthopedic consultation with Dr. [REDACTED] was obtained for question of a navicular fracture. After several days the trauma surgeon thought she was stable and signed off the case. She continued to be followed by neurosurgery, plastic surgery, and ophthalmology. We went ahead with a tracheotomy on [REDACTED] 94 without difficulty. The patient continued to improve slowly but then developed increasing fever and pulmonary congestion. She was seen by Dr. [REDACTED] for infectious disease consult and diagnosis of Herpes Simplex was made.

I certify that the narrative description of the principal and secondary diagnoses and major procedures performed is accurate and complete to the best of my knowledge.

Signed _____, M.D.

Date [REDACTED] 94

FINAL SUMMARY

NAME: [REDACTED]

Page: 2

The patient was treated with anti-viral agents. Additional consultation with Dr. [REDACTED] was obtained. His diagnosis was traumatic retinal detachment.

The patient continued to improve and was seen in rehabilitation medicine consultation by Dr. [REDACTED]. The patient was eventually transferred to [REDACTED] on [REDACTED] 94 for continued care.

HOSPITAL
PHYSICIAN ATTESTATION STATEMENT
DATE 11/1/94

PAGE: 1

NAME [REDACTED] ACCT [REDACTED] MED REC NO [REDACTED]
ADM/VST DATE 11/1/94 DIS/DEPART DATE 11/1/94 ROOM/BED [REDACTED]
DATE OF BIRTH [REDACTED] AGE 62 SEX F LOS [REDACTED] DSCH DISP [REDACTED]
ATTENDING PHYSICIAN [REDACTED]

MDC [REDACTED] DIS AND DISOR OF THE NERVOUS SYSTEM
DRG [REDACTED] TRACHMY EX FACE, MOUTH AND NECK DIAG
OUTLIER STATUS

ADMITTING DIAGNOSIS

851.05 CORTEX CONTUS-DEEP COMA

PRINCIPAL DIAGNOSIS

1. 851.05 CORTEX CONTUS-DEEP COMA

SECONDARY DIAGNOSES

DIAGNOSIS TYPE

2.	852.05	SUBARACH HEM-DEEP COMA	C
3.	862.8	INTRATHORACIC INJ NOS-CL <i>Contusion, intrathoracic</i>	S
4.	802.4	FX MALAR/MAXILLARY-CLOSE	C
5.	802.0	NASAL BONE FX-CLOSED	S
6.	480.8	VIRAL PNEUMONIA NEC <i>herpes</i>	S
7.	482.82	E. COLI PNEUMONIA	C
8.	873.51	OPEN WOUND CHEEK-COMPL	S
9.	361.04	PART DETACH-DIALYSIS <i>retina</i>	S
10.	814.01	FX NAVICULAR, WRIST-CLOS	S
11.	E816.0	LOSS CONTROL MV ACC-DRIV	

PROCEDURES

PROCEDURE TYPE

DATE

1.	31.29	OTHER PERM TRACHEOSTOMY	F	[REDACTED]	11/1/94
2.	43.19	GASTROSTOMY NEC		[REDACTED]	11/1/94
3.	01.18	OTHER BRAIN DX PROCEDURE <i>ICPM</i>		[REDACTED]	11/1/94
4.	21.71	CLOS REDUCTION NASAL FX		[REDACTED]	11/1/94
5.	27.59	MOUTH REPAIR NEC		[REDACTED]	11/1/94
6.	86.59	SKIN SUTURE NEC		[REDACTED]	11/1/94
7.	33.24	ENDOSCOPIC BRONCHUS BX		[REDACTED]	11/1/94
8.	86.07	VAD INSERTION		[REDACTED]	11/1/94
9.	96.72	CONT MECH VENT-95 HOURS		[REDACTED]	11/1/94

I CERTIFY THAT THE NARRATIVE DESCRIPTIONS OF THE PRINCIPAL AND SECONDARY DIAGNOSES AND THE MAJOR PROCEDURES PERFORMED ARE ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

ATTENDING PHYSICIAN

DATE 11/1/94

HOSPITAL

Personal History and Physical Examination

Name	Admission #	Room #	Date Admitted
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]/94
DOB: [REDACTED]			

CHIEF COMPLAINT & HISTORY OF PRESENT ILLNESS: [REDACTED] is a 62-year old female who was apparently the solo occupant of her automobile when as she approached a hill she was forced into a guard rail which caused her to spin around and accelerate backwards up the hill and over an embankment. The car apparently brushed a tree and she was found slumped over the steering wheel. The highway patrolman and the patient's husband are available for comment. The top portion of the steering wheel was apparently bent. She was restrained and the airbag did inflate. The first individual on the scene was unable to remove the patient from the automobile. The highway patrolman explains that there was minimal damage to the automobile with no other significant injury to the interior. The windows were all intact.

MEDICATIONS: Calcium, occasional aspirin.

ALLERGIES: No medical allergies.

PAST HISTORY: The patient had undergone vein stripping in the past and some pedal procedures. Otherwise, no significant injuries, illnesses, operations, or hospitalization. There is no history for heart disease or lung disease, or other systemic disorders.

PHYSICAL EXAMINATION: The patient is on the rigid board in the trauma unit. There is blood over her face and neck. She is wearing a cervical collar and one of the attendants is holding a direct pressure bandage on the right side of the face. The patient is spontaneously moving all extremities and occasionally attempts to get up. She is intubated and has two peripheral IV's. She has received more than two liters of lactated Ringers by the time she is delivered to the trauma unit. Her vital signs have been stable, but she has not been responsive.

The systolic pressure remains above 100 mmHg throughout the examination and the pulse rate varies between 50 and 60 bpm. The initial oxygen saturation is less than 90. Blood gases reflect hyperventilation with some compromised aeration.

There is an irregular, deep laceration of the right cheek, but bleeding is limited with direct pressure. There is a large, protuberant hematoma over the right forehead.

Breath sounds are diminished in the left lung when compared with the right which seems to be well-ventilated.

The abdomen is flat, nondistended, and there are some audible bowel sounds. There is no organomegaly or guarding. Foley catheter is eventually placed and it drains clear urine.

The extremities reflect excellent peripheral pulses without peripheral edema. There is hemorrhage over the left wrist but an eventual film demonstrates no fracture.

HISTORY AND PHYSICAL
NAME: [REDACTED]
PAGE 2

A cervical spine film is obtained and appears normal. A chest film is obtained and demonstrates the orotracheal tube extending down into the right mainstem bronchus, so this is retracted with subsequent ventilation of the left lung also. A subsequent chest film confirms that the orotracheal tube has been properly positioned and the lungs are well-ventilated.

An orogastric tube is eventually placed and oxidized blood is retrieved from the stomach. Its position is confirmed during subsequent CT scan.

On examination of the neck there is no cervical distortion. Trachea is midline. There is no jugular venous distention. I do not hear bruits. The lungs are now well-ventilated. The heart rate is regular without murmur or gallop. There is no percussible cardiomegaly.

The patient is logrolled and there appears to be no injury to the back. She does have ecchymosis over the superior portion of her chest without significant intrathoracic injury.

When I am satisfied the patient is properly ventilated and stable, she is taken to the Radiology Department where scan of the head and abdomen are obtained. We find evidence for fairly massive intracerebral contusion involving the right parietal and temporal lobes with nasal fracture. Scan of the abdomen is normal in that there appears to be no visceral injury or hemorrhage. Pelvic films are normal. X-ray of the left wrist where she has hematoma is normal.

The patient is transfused 2 units of packed red blood cells utilizing a warmer.

IMPRESSION: Severe right-sided intracranial contusion and facial fractures and lacerations sustained in a motor vehicle accident.

I have consulted Dr. [REDACTED] and Dr. [REDACTED] to manage the intracranial and facial injuries. Will consult ophthalmologist to evaluate the orbital contusion on the right side and will have [REDACTED] Critical Care manage the respirator and systemic problems. The patient's husband is in agreement and our findings are discussed with him.

Signed [REDACTED], M.D.
[REDACTED] M.D.

D&T06/07

REPORT OF CONSULTATION

Hospital
, Nebraska

Patient's Name	Admission #	Room #	Age	Date
[REDACTED]	[REDACTED]	[REDACTED]	62	[REDACTED] 94
Attending Physician	Consulting Physician			
[REDACTED] M.D.	[REDACTED] M.D.			
DOB: [REDACTED]	cc: [REDACTED]			

REASON FOR EVALUATION: This lady is ventilator controlled with a severe brain injury.

HISTORY OF PRESENT ILLNESS: This is a 61-year-old lifelong nonsmoking lady who runs a restaurant, The [REDACTED] in [REDACTED] NE, who was involved in an auto accident today when she was driving about 30mph, apparently skidded off a gravel road, and apparently scraped the guard rail, whereupon an airbag exploded, and she now has a severe brain injury. Apparently the car was not injured very much. Apparently they were able to drive the car away. It was apparently next to a bridge, but she apparently careened into another side of the road. She is now unconscious and has been intubated. She is on a mechanical ventilator at this time with a tidal volume of approximately 1,000, respiratory rate of 20. Arterial blood gases show pH 7.67, PCO2 15, and PO2 420-something. This is on 100% of O2.

PAST MEDICAL HISTORY:

General: Significant in the fact that she's a lifelong nonsmoker. Has no history of any exposures or problems in the past. She has no history of ulcers. She is a very active lady and is usually very healthy.

GU: There is no dysuria, hematuria, pyuria, frequency, or burning.

Past Surgeries: Skin graft in her right anterior abdomen and chest secondary to a burn, and has had some toenail hammertoe surgery in the recent past. Has had no other hospitalizations.

Allergies: None.

Cardiac: Denies any past history of heart disease or problems with pulmonary emboli or myocardial infarction in the past.

Respiratory: No history of asthma, bronchitis. No recent colds or flu. No pulmonary emboli or problems with chest pain or orthopnea.

GYN: Essentially negative.

Endocrine: Denies any polydipsia, polyuria, heat or cold intolerance. No history of diabetes or thyroid problems.

Skin: No evidence of skin rashes or arthritides.

Musculoskeletal: No recent myalgias or pains in the joints.

FAMILY HISTORY: Father with emphysema; otherwise, no history of exposures to tuberculosis.

PHYSICAL EXAMINATION:

General: Exam tonight demonstrates a well-developed, well-nourished lady with a severe brain injury. Oral-tracheal intubation has been performed.

NAME:

PAGE: 2

HEENT: Bilateral hematomas in the eyes. Nose appears to be crushed, but oral-tracheal intubation has been performed.

Neck: Thyroid normal size, shape, and consistency.

Chest: Good breath sounds noted bilaterally. No wheezes, rhonchi, rales, or crackles.

Heart: Shows a regular rhythm with no murmur, rub, or gallop.

Abdomen: Soft, scaphoid, and nontender. Small excoriations are noted on the abdomen.

Extremities: Show no edema, clubbing, cyanosis, or phlebitis.

X-RAY: Chest film demonstrates no acute infiltrates, atelectasis, or effusion.

DIAGNOSTIC IMPRESSION:

1. Acute brain injury with resultant hyperventilation.
2. Previous burn anterior right chest and abdomen.
3. Previous surgery for hammer toe.
4. Lifelong nonsmoker.

RECOMMENDATIONS: Continue the hyperventilation at this time. She is to be kept on the mechanical ventilator. Decrease the rate and the tidal volume to about 800 and rate of 15, given the severe metabolic respiratory alkalosis? and attempt to try and keep the PCO2 about 25-30 range. Continue monitoring very cautiously here in Intensive Care with placement of CVP in the morning.

Signed _____, M.D.
_____, M.D.

**Hospital
Nebraska**

DOB: [REDACTED]

D&T-

REPORT OF CONSULTATION

Hospital
, Nebraska

Patient's Name	Admission #	Room #	Age	Date
				/94
Attending Physician	Consulting Physician			

HISTORY OF PRESENT ILLNESS: This 62-year-old female was admitted on /94 following motor vehicle accident. Injuries incurred in the accident include a right cerebral contusion with subarachnoid hemorrhage, facial laceration, right retinal detachment and a fractured left forearm.

His post-operative course has been complicated with fevers and pulmonary infiltrates. Bronchoscopy performed on /94 with bronchoalveolar lavage revealed *antrobacter aerogenes* and viral inclusions. Herpes simplex viral antigen was positive.

Current antibiotics include Vancomycin 1 gram I.V. q 24 hours, started on /94; Zosin 3.325 gram I.V. q 8 hours, started on /94; and Fluconazole started on /94 and discontinued /94.

The patient underwent tracheostomy and insertion of percutaneous esophagogastroduodenoscopy tube on /94.

PAST HISTORY: Prior history is very limited. Apparently she had a burn injury to the anterior chest and abdomen in the distant past.

ALLERGIES: None known or recorded.

FAMILY HISTORY: Unavailable.

SOCIAL HISTORY: Unavailable.

REVIEW OF SYSTEMS: Unavailable.

PHYSICAL EXAMINATION:

General:

An ill-appearing female, unresponsive, though will at times withdraw with noxious stimuli.

VS:

Temperature - 99.6. Pulse - 76. Respirations - 18.
BP - 126/72.

HEENT:

Normocephalic with contusion noted on the right frontal scalp. In addition, there is a Battle sign noted on the right over the right mastoid process. TM's are partially obscured with cerumen and coagulated blood. Hearing - unable to assess. Eyes - pupils nonreactive on the right, left reacts slowly. EOM's - unable to assess. Sclerae are white, conjunctivae are pink and moist without hemorrhages.

Hospital , Nebraska

Patient's Name	Admission #	Room #	Age	Date
[REDACTED]	[REDACTED]	[REDACTED]	62	[REDACTED]/84
Attending Physician		Consulting Physician		
[REDACTED]		[REDACTED]		
DOB: [REDACTED]				

The patient was reexamined after pupils were dilated. She is not alert and not cooperative for visual acuity examination. Slit lamp examination reveals she has a clear cornea, deep anterior chamber, less hyphema than yesterday, and there is still no evidence of scleral laceration, although she still has considerable edema in the temporal quadrant. Pressures were 12 in the right and 20 in the left. The retina was examined. She had an inferior retinal detachment which could possibly be a carotid effusion and she had vitreous hemorrhage. The left eye was normal.

IMPRESSION: She is suffering from a retina detachment which is possibly a carotid effusion. There is always the possibility of scleral rupture, although none was seen. If her neurologic condition improves, I feel she should definitely be evaluated by Dr. [REDACTED], who is a retinal specialist, to see if retinal surgery is indicated. At that time, I would recommend exploration of the temporal quadrant of the sclera to be sure there is no rupture.

Signed _____, M.D.
_____, M.D.

Don't T.O.

**Hospital
, Nebraska**

Patient's Name	Adm. #	Room #	Age	Date
[REDACTED]	[REDACTED]	[REDACTED]	62	11/19/94
Attending Physician	Consulting Physician			
[REDACTED]	[REDACTED] MD			

C: [REDACTED]

DOB: [REDACTED]

Examination on 4/11/94 indicates that the patient is more alert than last time; however, she still cannot cooperate for visual acuity measurements. Pupil on the right is fixed and dilated, the cornea is clear, and she has a deep anterior chamber. She continues to have retina detachment. She will be transferred to [REDACTED] and it is planned that Dr. [REDACTED] will be following her and repairing her retina surgically since this is her most important ocular problem.

Signed _____, MD
_____, MD

D/T-~~11~~/94

REPORT OF CONSULTATION

Hospital
, Nebraska

Patient's Name	Admission #	Room #	Age	Date
				6/1/94
Attending Physician	Consulting Physician			

HISTORY OF PRESENT ILLNESS: This 62-year-old female was admitted on 6/1/94 following motor vehicle accident. Injuries incurred in the accident include a right cerebral contusion with subarachnoid hemorrhage, facial laceration, right retinal detachment and a fractured left forearm.

His post-operative course has been complicated with fevers and pulmonary infiltrates. Bronchoscopy performed on 6/1/94 with bronchoalveolar lavage revealed anaerobacter aerogenes and viral inclusions. Herpes simplex viral antigen was positive.

Current antibiotics include Vancomycin 1 gram I.V. q 24 hours, started on 6/1/94; Zosin 3.325 gram I.V. q 8 hours, started on 6/1/94; and Fluconazole started on 6/1/94 and discontinued 6/1/94.

The patient underwent tracheostomy and insertion of percutaneous esophagogastroduodenoscopy tube on 6/1/94.

PAST HISTORY: Prior history is very limited. Apparently she had a burn injury to the anterior chest and abdomen in the distant past.

ALLERGIES: None known or recorded.

FAMILY HISTORY: Unavailable.

SOCIAL HISTORY: Unavailable.

REVIEW OF SYSTEMS: Unavailable.

PHYSICAL EXAMINATION:

General:

An ill-appearing female, unresponsive, though will at times withdraw with noxious stimuli.

VS:

Temperature - 99.6. Pulse - 76. Respirations - 18.
BP - 126/72.

HEENT:

Normocephalic with contusion noted on the right frontal scalp. In addition, there is a Battle sign noted on the right over the right mastoid process. TM's are partially obscured with cerumen and coagulated blood. Hearing - unable to assess. Eyes - pupils nonreactive on the right, left reacts slowly. EOM's - unable to assess. Sclerae are white, conjunctivae are pink and moist without hemorrhages.

REPORT OF CONSULTATION

NAME: [REDACTED]

PAGE: 2

Fundusoscopic exam reveals retinal detachment on the right. The left retina appears normal without exudates or hemorrhage. Sinuses are nontender to percussion. Nose is patent. Mouth - buccal mucosa is only partially visualized. What is seen is pink without exudate. Oropharynx not visualized.

Neck: Supple without palpable thyroid masses or lymphadenopathy. Carotid upstroke brisk and full without bruits. No JVD noted. Trachea midline. Tracheostomy tube in place. No drainage around the tracheostomy tube.

Chest: Symmetric. Axilla reveals no lymphadenopathy.

Lungs: Coarse breath sounds are heard throughout the pulmonary fields. No wheezing or rales noted.

Breasts: Normal female without masses or tenderness.

Heart: Regular sinus rhythm without murmur, rub or gallop.

Abdomen: Peg tube in place. Soft. Active bowel sounds. No organomegaly, masses or tenderness on palpation.

GU: External genitalia - Foley catheter in place. No inguinal adenopathy noted.

Extremities: The left forearm is occluded in an orthopedic cast. She has bilateral foot drop. I do not, however, appreciate any joint effusions or erythema. Peripheral pulses are +2 in the upper extremities, diminished in the feet bilaterally. There is no venous engorgement or varicosities noted.

Back: Symmetric. No pain on palpation and percussion. No CVA tenderness noted.

Neurologic: Unresponsive. Will respond on the left side with noxious stimuli. No purposeful movement noted on the right side, though she does posture with stimulation on the right side. Hyperreflexic, particularly on the left side. Bilateral Babinski's noted.

Derm: No masses. No rashes. Multiple contusions.

- DIAGNOSTIC IMPRESSION:
1. _____ leukocytosis.
 2. Gram negative pneumonia with viral pneumonia component.
 3. Right cerebral contusion with subarachnoid hemorrhage.
 4. Right retinal detachment.
 5. Fractured left forearm.

DISCUSSION:

At this time I would anticipate that the severe contusion sustained involving the right cerebrum would be sufficient to explain her neurological status. I do not feel that there is a component of herpes encephalitis complicating her clinical picture. Certainly the viral inclusions seen on bronchoalveolar lavage and the positive herpes antigen would be sufficient data to support the diagnosis of viral pneumonia, though the gram negative organism *enterobacter aerogenes* I suspect is the significant culprit causing the pneumonic process.

REPORT OF CONSULTATION

NAME: [REDACTED]

PAGE: 3

RECOMMENDATIONS:

1. I would continue the Zosin, but would increase it to 4.5 grams I.V. q 8 hours.
2. I would add Aztreonam 1 gram I.V. q 8 hours.
3. I would add Acyclovir 300 mg I.V. q 8 hours.
4. I would discontinue the Vancomycin for now.
5. I would obtain additional blood cultures with ADD times two sets, one hour apart.
6. I would obtain a CBC and AMP in the morning.

Thank you for allowing me to see and participate in the care of this very interesting patient. I did discuss the case with Dr. [REDACTED] at his request and will be writing orders for diagnostic studies and antimicrobial therapy.

MD

Signed _____, M.D.

, M.D.

D/T [REDACTED]

BODY DIAGRAMS AND MEDICAL RECORDS
FROM
REHABILITATION FACILITY¹⁴

¹⁴ Specifically, these body diagrams are based on the medical records that this contractor obtained from this patient's rehabilitation medical facility.

OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

• Facial laceration
(HP1, OT1, DS1, HP2, OT2, DS2)

• C/o very poor eyesight (OT3)

• Retina detachment
(HP1, PT1, OT1, DS1, HP2, OT2, DS2)

• Residual vitreous hemorrhage (R)
(DS1)

• Previous area of intracranial pressure monitor is noted
(HP1, DS1, HP2, DS2)

Complex Medical Unit [REDACTED]
Acute Rehabilitation Unit [REDACTED]
(DS1)

Outpatient Therapy begins [REDACTED] (CP2)

Abbreviations

PT= Physical Therapy
OT= Occupational Therapy
CD= Communicative Disorders
CP= Clinical Psychology
AM= Intra-abdominal pressure monitoring bladder evaluation

Records

HP1	[REDACTED]	OT2	[REDACTED]
PT1	[REDACTED]	AM	[REDACTED]
OT1	[REDACTED]	DS2	[REDACTED]
CD1	[REDACTED]	CD3	[REDACTED]
DS1	[REDACTED]	CP2	[REDACTED]
HP2	[REDACTED]	OT3	[REDACTED]
CD2	[REDACTED]		
CP1	[REDACTED]		

REHABILITATION RECORDS

SOURCE OF INJURY DATA

OFFICIAL

- (1) Autopsy records with or without hospital/medical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

UNOFFICIAL

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify): _____
- (9) Police

INJURY SOURCE

FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/epoka
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel end below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify): _____
- (19) Other front object (specify): _____

LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar
- (23) Left B-pillar
- (24) Other left pillar (specify): _____

- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (27) Other left side object (specify): _____

- (28) Left side window sill

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
 - (31) Right side hardware or armrest
 - (32) Right A (A1/A2)-pillar
 - (33) Right B-pillar
 - (34) Other right pillar (specify): _____
 - (35) Right side window glass or frame
 - (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
 - (37) Other right side object (specify): _____
 - (38) Right side window sill
- ### INTERIOR
- (40) Seat, back support
 - (41) Belt restraint webbing/buckle
 - (42) Belt restraint B-pillar or door frame attachment point
 - (43) Other restraint system component (specify): _____
 - (44) Head restraint system
 - (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
 - (46) Other occupants (specify): _____
 - (47) Interior loose objects
 - (48) Child safety seat (specify): _____
 - (49) Other interior object (specify): _____

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

- (60) Backlight (rear window)

- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): _____

EXTERIOR of OCCUPANT'S VEHICLE

- (65) Hood
- (66) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or tires (specify): _____
- (68) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify): _____
- (73) Hood
- (74) Hood ornament
- (75) Windshield, roof rail, A-pillar
- (76) Side surface
- (77) Side mirrors
- (78) Other side protrusions (specify): _____

- (79) Rear surface
- (80) Undercarriage
- (81) Tires and wheels
- (82) Other exterior of other motor vehicle (specify): _____

- (83) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (84) Ground
- (85) Other vehicle or object (specify): _____
- (86) Unknown vehicle or object

NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify): _____
- (93) Air bag exhaust gases
- (97) Injured, unknown source

INJURY SOURCE CONFIDENCE LEVEL

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

DIRECT/INDIRECT INJURY

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

OCCUPANT INJURY CLASSIFICATION

Body Region	Specific Anatomic Structure	Spine	Abbreviated Injury Scale
(1) Head	<u>Whole Area</u>	(02) Cervical	(1) Minor injury
(2) Face	(02) Skin - Abrasion	(04) Thoracic	(2) Moderate injury
(3) Neck	(04) Skin - Contusion	(08) Lumbar	(3) Serious injury
(4) Thorax	(08) Skin - Laceration	<u>Vessels, Nerves, Organs, Bones, Joints</u> are assigned consecutive two digit numbers beginning with 02	(4) Severe injury
(5) Abdomen	(08) Skin - Avulsion		(5) Critical injury
(6) Spine	(10) Amputation		(6) Maximum (untreatable)
(7) Upper Extremity	(20) Burn		(7) Injured, unknown severity
(8) Lower Extremity	(30) Crush		
(9) Unspecified	(40) Degloving		
	(50) Injury - NFS	<u>Level of Injury</u>	<u>Aspect</u>
	(90) Trauma, other than mechanical	Specific injuries are assigned consecutive two-digit numbers beginning with 02.	(1) Right
<u>Type of Anatomic Structure</u>		To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.	(2) Left
(1) Whole Area	<u>Head - LOC</u>		(3) Bilateral
(2) Vessels	(02) Length of LOC		(4) Central
(3) Nerves	(04, 06, 08) Level of Consciousness		(5) Anterior
(4) Organs (includes muscles/ligaments)	(10) Concussion		(6) Posterior
(5) Skeletal (includes joints)			(7) Superior
(6) Head - LOC			(8) Inferior
(9) Skin			(9) Unknown
			(0) Whole region

OFFICIAL INJURY DATA — SKELETAL INJURIES

Restreined?

___ No

___ Yes

Blood Alcohol
Level (mg/dl)

BAL = ___

Glasgow Come
Scale Score

GCSS = ___

Units of Blood
Given

Units = ___

Arterial Blood
Gases

pH = ___

PO₂ = ___

PCO₂ = ___

HCO₃ = ___

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Rappaport Coma/Near Coma Scale 28 (CD1, CD2)

RANCHO Los Amigo

Level V Rancho scale (CD1)

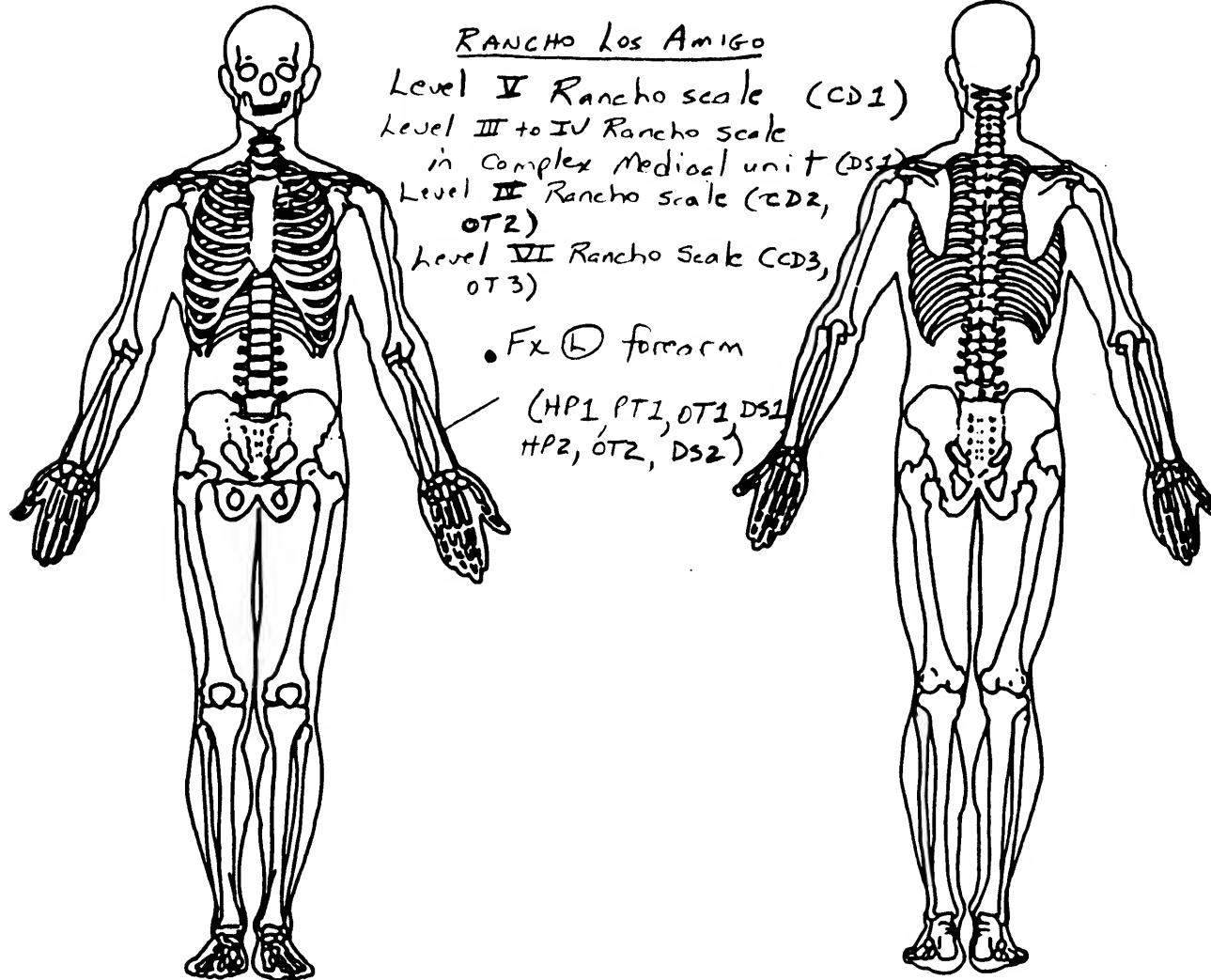
Level III to IV Rancho scale
in complex Medial unit (DS1)

Level II Rancho scale (CD2,
OT2)

Level VI Rancho Scale (CD3,
OT3)

• Fx (L) forearm

(HP1 PT1, OT1 DS1
HP2, OT2, DS2)



REHABILITATION RECORDS

OFFICIAL INJURY DATA —INTERNAL INJURIES

Traumatic Brain Injury (CPI, AM, DS2, CD3)

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

- Cognitive exam difficult—does move all extremities (HP1)

- R UE flexion, LE extension (PT1)

- active movement on L UE/LE but no purposeful movement noted, R pupil unreactive, L reacts slowly (OT1)

- Generalized responses to most stimuli, characterized by decreased saturation levels (CD1, CD2)

- aphasic (DS2, HP2)

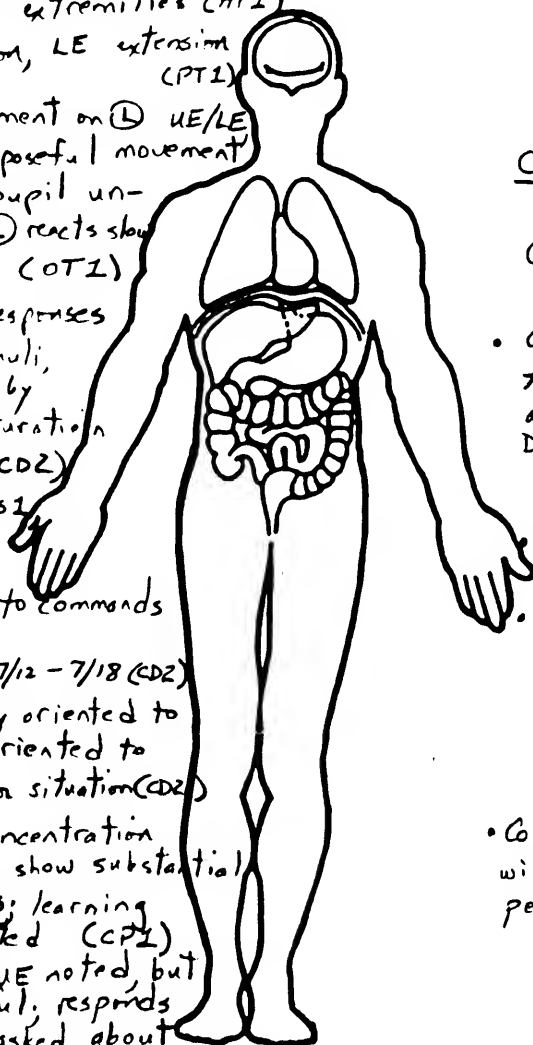
- Moves all 4 extremities to commands (HP2)

- Dysphagia 7/12 - 7/18 (CD2)

- Inconsistently oriented to person, not oriented to place, time, or situation (CD2)

- Confused; concentration and tracking show substantial impairments; learning ability limited (CPI)

- movement L UE noted, but not purposeful; responds to questions asked about family inconsistently (OT2)



- Subarachnoid hemorrhage • R cerebral contusion*

(HP1, PT1, OT1, CD1, DS1, HP2, CD2, OT2, DS2, CD3, OT3)

(HP1, PT1, OT1, CD1, DS1, HP2, CD2, OT2, DS2, CD3, OT3)

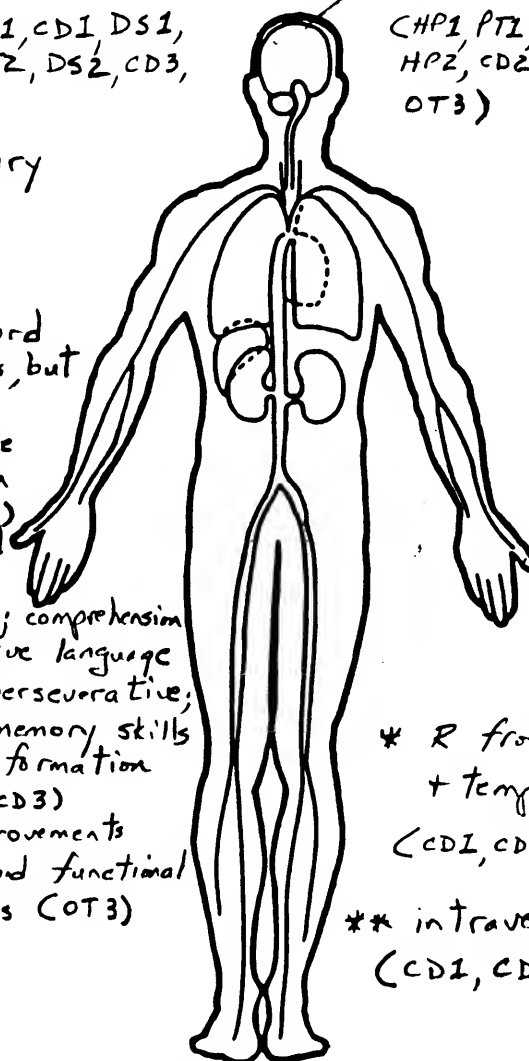
Closed Head Injury

(CD1)

- continues to have word finding difficulties, but able to verbalize Discharged in stable medical condition (DS2)

- dysphagia resolved (CD3)
- Moderately aphasic; comprehension is concrete + expressive language is tangential and perseverative; demonstrates poor memory skills for learning new information (CD3)

- Continues to make improvements with cognitive status and functional performance of tasks (OT3)



* R frontal, parietal, + temporal lobes (CD1, CD2, CD3)

** intraventricular (CD1, CD2, CD3)

REHABILITATION RECORDS

Rehabilitation Hospital

Comprehensive
Inpatient/Outpatient
Rehabilitation for:

- Traumatic Brain Injury
- Spinal Cord Injury
- Orthopedics
- Burn
- Stroke
- Neuromuscular Disorders
- Pediatric Rehabilitation

ACCREDITED:

- Commission on Accreditation of Rehabilitation Facilities (CARF)

MEMBER:

- American Hospital Association
- National Association of Rehabilitation Facilities (NARF)

Date:  94

Company:  - *atty*


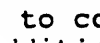

Address: _____

Patient: 

Case # 

Information Sent: *H & P's - Physicians' dicta*

summaries; spasticity clinic evals; Bladder evals; CD eval & D/S; PT eval, Psych eval & D/S; PT eval & D/S

Please remit \$  to the above address to cover the fees for this service. Charges include \$  to cover up to the first 10 pages and \$  for each additional page.

32 pages

Thank you,

Medical Records Staff

PLEASE NOTE: Use of this information for other than stated purpose is prohibited. Disclosure by recipient to any other party is prohibited. Destruction of copies after the stated need has been fulfilled is requested.

REHABILITATION HOSPITAL

HISTORY & PHYSICAL ON: [REDACTED] - [REDACTED] 94

CHIEF COMPLAINT: Status post traumatic brain injury.

HISTORY OF PRESENT ILLNESS: Ms. [REDACTED] is a 62-year old white female admitted [REDACTED] 94 to [REDACTED] Hospital following a motor vehicle accident. Injuries included right cerebral contusion with subarachnoid hemorrhage, facial laceration, right retinal detachment and fractured left forearm. Her hospital course was complicated by pulmonary infiltrates, herpes simplex antigen positive, required antibiotics. Eventually required a tracheostomy insertion of percutaneous G-tube on [REDACTED] 94. Past medical history is limited. Apparently had burn injury to the anterior chest, abdomen.

ALLERGIES: None.

FAMILY HISTORY: Unavailable.

SOCIAL HISTORY: Unavailable.

REVIEW OF SYSTEMS: Unavailable.

PHYSICAL EXAMINATION: Reveals a well developed, well nourished white female in no apparent distress. Vital signs show a pulse of 80 and regular, bounding pulse. Blood pressure 140/92. Temperature is 98.2.

HEENT: Reveals. PERRL, EOMI, NCAT. Nasal oral pharynx is clear. Previous area of intercranial pressure monitor or kameno monitor is noted as clean, dry and intact and healing nicely. Patient will track briefly on examiner. Other cognitive examination is difficult. She does move all extremities well.

NECK: Is supple.

CARDIAC: Chest is clear. Cardiac exam regular rate and rhythm without murmur.

ABDOMEN: Soft and non tender. Normal abdominal bowel sounds. Liver and spleen are not enlarged. Abdomen is non distended. No masses noted.

EXTREMITIES: Without edema. Moving all four extremities well. Reflexes are not enhanced, tone does not appear to be a problem.

IMPRESSION: Middle aged white female status post traumatic injury who will initiate all therapy programs. I have ordered physical, occupational, speech and neuropsychology services. Will begin initial evaluations and follow closely. Will monitor all the medications. Currently there is no need for medications to control agitation but this may become a problem later on in her course. Will monitor her bowel problem. This had been a problem somewhat at the acute care facility. Prognosis is guarded at this point in time. We will continue to monitor her medical condition. If we can wean her from the vent, it is possible that she would be admitted to the acute rehabilitation program.

, M.D.

REHABILITATION HOSPITAL PHYSICAL THERAPY EVALUATION

NAME [REDACTED] AGE 62 ADM DATE 11-94 RM 84

PATIENT PROFILE: M Q Dx: ① cerebral contusion subarachnoid hemorrhage ② herpes simplex virus ③ rhinocerebral ONSET 10-84

PHYSICIAN [REDACTED]

PRECAUTIONS post-herpes simplex virus

BEHAVIOR: Alert--YES (NO) Oriented--YES NO NE Impulsive--YES (NO)

Follows commands--YES (NO) Rancho-- 2/3

eyes open, no attempt to communicate, does focus

FUNCTIONAL STATUS

Sitting balance	DEP	MAX	MOD	MIN/HOA	SBA	IND	<u>NE</u>
Standing balance	DEP	MAX	MOD	MIN/HOA	SBA	IND	<u>↓</u>
Transfers	DEP	MAX	MOD	MIN/HOA	SBA	IND	<u>↓</u>
Mat mobility	DEP	<u>MAX</u>	MOD	MIN/HOA	SBA	IND	<u>some random rocking + bulging</u>
WC mobility	DEP	MAX	MOD	MIN/HOA	SBA	IND	<u>NE</u>
Ambulation	DEP	MAX	MOD	MIN/HOA	SBA	IND	<u>↓</u>
Device							
Gait							

Activity tolerance (30 minutes) YES NO ?

NEUROMUSCULAR Key: NM-No movement BM-Beginning movement GE-Gravity eliminated *-Spasticity present AG-Against gravity R-Resisted NE-Not evaluated

Strength				R.O.M.			
†(R)	(L)	†(R)	(L)	†(R)	(L)	†(R)	(L)
Shoulder Flexion				Hip Flexion			
Extension				Extension			
Abduction				Abduction			
Adduction				Adduction			
External Rotation				External Rotation			
Internal Rotation				Internal Rotation			
Elbow Flexion				Knee Flexion			
Extension				Extension			
Supination				Foot Dorsiflexion			
Pronation				Plantarflexion			
Wrist Flexion				Inversion			
Extension				Eversion			
Finger Flexion							
Extension							

Comments: ↑ flex tone @ UE ① forearm ext no active movmt @ UE active/random @ random/active @ LE movement Some hip flex @ occ. noted

Sharp/dull WNL MIN LOS MOD LOSS MARKED LOSS (NE)

Proprioception WNL MIN LOS MOD LOSS MARKED LOSS (NE)

No evident responses from
Phon + tactile stim

POSTURE

Ⓟ UE flex, LE ext

WHEELCHAIR NEEDS

NE

OTHER

No. gumming Pain

Edema

Leg-length discrepancy

Ulcer

Subluxation

Neglect

Visual deficits

HOME ENVIRONMENT/PRIOR FUNCTIONAL LEVEL

NE

Runs Restaurant # [redacted] In [redacted] NE

ASSESSMENT:

pt appears to be beginning to alertness

STRENGTHS/ABILITIES:

1. Random Ⓟ LE + UE moving
2. opening eyes

PATIENT PREFERENCES:

NE

PATIENT/FAMILY EDUCATION NEEDS:

TBI levels + recovery

PATIENT NEEDS:

1. Bed mob
2. + bal
3. + transfers
4. + amb + w/c
5. + Ⓟ side movement

SHORT-TERM GOALS: (2 wks)

1. Sitting bal mod
2. Rolling mod
3. Transfer mod of 2
4. Alert each session

LONG-TERM PROJECTIONS: (3 mos.) - (4 mos)

1. Bed mob min
2. Sitting bal SBA
3. Transfer min
4. Amb 20' device min

5. Ⓟ LE F-

6. Follow simple commands

PLAN:

Individual

①

2

3

Group

UE

WC

W

Other

IR

Therapist Signature

Date

94

⊕ for Herpes Simplex viral antigen
Vent pt.

OCCUPATIONAL THERAPY SKILLED REHAB EVALUATION
REHABILITATION HOSPITAL

NAME [REDACTED] ADMIT DATE [REDACTED] 194 ONSET DATE [REDACTED] 74
ROOM # [REDACTED] PATIENT ORIENTED TO OT PURPOSE attempted
DIAGNOSIS MVA; ⊕ cerebral contusion, subarachnoid hemorrhage, facial laceration, ⊕ retinal
HISTORY-- detachment, ⊕ forearm, tracheostomy Hx of burn to ant. ch
PRECAUTIONS and abdo.
AGE-- 62 HOME ADDRESS [REDACTED] NE [REDACTED]
SIGNIFICANT OTHERS/DISCHARGE PLANS Married

UE FUNCTION: WFL or - STRENGTH AND RANGE OF MOTION: WFL or - = deficit

ARM PLACEMENT:	R	L	PART	ACTION	STRENGTH	ROM	PART	ACTION	STRENGTH	ROM
Reach forward										
Hand to mouth			Shoulder	Abduction			Wrist	Flexion		
Reach above head				Horiz. Abd.				Extension		
Reach behind head				Horiz. Add.			Finger	Grip		
Reach behind back				Flexion				Extension		
Hand from side to lap				Internal Rotation			Spasticity/Flaccidity: fluctuating high tone present in ⊕ u			
Hand to table top				External Rotation						
HAND STRENGTH:			Elbow	Flexion			Pain/Contracture:			
DOMINANCE:				Extension						
COORDINATION - GROSS:			Forearm	Supination			MUSCLE GRADES: 5/5 = Normal 3/5 = Fair 1/5 = Trace 4/5 = Good 2/5 = Poor 0/5 = Zero			
FINE?				Pronation						

FUNCTIONAL USE OF UPPER EXTREMITY: Much active movement on ⊕ u; no purposeful mov't noted;
pt. restless, somewhat agitated.

ACTIVITIES OF DAILY LIVING: List level of assist

HYGIENE:	MISCELLANEOUS:	ADDITIONAL COMMENTS:
1. Brush teeth Dep	1. Write name Dep	Overall patient's: Dep for UE care Dep for LE care Dep for oral, hair & grooming
2. Wash hands and face	2. Pick up object from floor	
3. Shave or make-up	3. Bearing	
4. Comb hair	4. Handle telephone	
5. Toilet hygiene	BALANCE	
6. Bath, shower	1. Sitting	
DRESSING:	2. Standing	IN OUT
1. Cardigan garment	TRANSFER:	
2. Slipover garment	1. Toilet	
3. Socks	2. Bed	
4. Socks	3. Chair	
5. Shoes	4. Bathtub	
6. Underclothes	5. Wheelchair	ED ACTIVITIES:
7. Dress completely	1. Sit up in bed	
8. Fastenings	2. Sit on edge of bed	
FEEDING:	LOCOMOTION:	
1. Manage solids with utensils Dep	1. Propel wheelchair	
2. Manage liquids with utensils	2. Walk back/forward	
3. Cut with knife	3. Handle cane/walker	
4. Drink from glass or cup		
5. Reach feeding area		
6. Eat at table		
7. Eat entire meal		

ASSISTIVE DEVICES/OTHER EQUIPMENT:

HOUSEWORK AND/OR HOME MANAGEMENT RESPONSIBILITIES:

Pt unable to provide info and not stated in chart.

WORK TOLERANCE/ENDURANCE:

POOR; poor attention

Key tube

UE SENSATION:	R	L	Comments
PT responds to noxious stimuli			

IMPRESSIONS OF IMPAIRMENT:	None	MILD	MODERATE	SEVERE	COMMENTS
PERCEPTUAL ORIENTATION					
Apraxia				✓	
Body Scheme				✓	
Right-Left Discrimination				✓	
Recognition of Error				✓	
Orientation-time, place, person				✓	
Spatial-Relationship				✓	
Visual Field				✓	(R) pupil unresponsive, (D) defects for
Motor Planning				✓	
Perseveration				✓	
EMOTIONAL BEHAVIOR					
Impulsivity				✓	
Frustration/Anxiety	✓			✓	
Lability/Depression	✓				

	POOR	FAIR	GOOD	EXCELLENT	
WARNING POTENTIAL					
Attention Span	✓				
Follow Directions	✓				
Carryover Directions	✓				
Memory	✓				
Sequencing	✓				
Problem Solving	✓				

PROBLEM AREAS:			
✓ ADL Skills	✓ Functional Mobility	✓ Safety	
✓ Feeding Skills	✓ (bed/wheelchair)	✓ Judgement	
✓ R/LUE Functioning	✓ Tub/Toilet Transfers	✓ Positioning	
✓ Cognitive/Perceptual	✓ Field Cut	✓ Memory	
✓ Apraxia			

PLAN:			
ADL Retraining	Motor Relearning	Adaptive Equipment	
Feeding Retraining	Mobility Training	Kitchen Evaluation	
✓ Increase UE Functioning/	Transfer Training	Energy Conservation	
✓ Strengthening	✓ Positioning	Joint Protection	
✓ Neuromuscular	Cognitive/Perceptual	Home Assessment/	
Re-education	Retraining	Visit	
Patient/Family Education			

Patient's Strengths/Abilities:	
Supportive Family/Friends	

Patient's Goal:	
Not stated	

Goals: Time Frame	3 months	Weeks to	Min 40	level of function
1) PT will follow 1 rep motor command 2-3x in 30 min session				
2) PT will demonstrate purposeful movement c/ UE				
3) PT will maintain ROM of UE despite tone				

Intensity of therapy planned:	3x/week

Signature	Date
[Signature]	10/1/94

REHABILITATION HOSPITAL
COMMUNICATION DISORDERS EVALUATION
SUMMARY SHEET

NAME [REDACTED] ADMIT DATE [REDACTED] EVAL DATE [REDACTED]
ADDRESS [REDACTED] AGE/DOB 62 ROOM # [REDACTED]
[REDACTED] MARITAL STATUS M PHONE [REDACTED]

DIAGNOSIS MVA & CHF ONSET [REDACTED]
MEDICAL HX CT - hemorrhagic contusion - Right frontal, parietal, temporal &
subarachnoid intraventricular hem
PRIOR TX FOR THIS CONDITION Hosp [REDACTED] TO [REDACTED]
HICN # (OUTPATIENTS) [REDACTED]
PHYSICIAN: [REDACTED]

BIOGRAPHICAL INFO Husb → [REDACTED]; run restaurant - [REDACTED]

PREINJURY COMMUNICATION/SWALLOWING STATUS Independent

OBJECTIVE DATA Generalized responses to most stimuli characterized
by decreased saturation levels through oxymetry and increased posturing
Some localized responses to tactile stimulation. Score on Rappaport
Coma / New-Coma Scale was 2.8, reflective of moderate coma

FORMAL TEST RESULTS [REDACTED]

STRENGTHS/ABILITIES Inconsistent responses (typically generalized)
to tactile / auditory stimulation

NEEDS (INCLUDING EDUCATION) Coma / sensory stimulation; family education
re: CHF; communication; increase concentration/attention

PATIENT PREFERENCES [REDACTED]

PATIENT AIM(S)

- 1) [REDACTED]
- 2) [REDACTED]
- 3) [REDACTED]

SPECIALTY EVALUATION(S) RECOMMENDED
✓ AUDIOLOGY MOTOR SPEECH DYSPHAGIA AUGMENTATIVE
 AGE

TREATMENT PLAN (INDICATE # SESSIONS PER DAY)
 ✓ INDIVIDUAL ✓ LAB _____ GROUP _____ X PER WEEK

(TBI ONLY) _____ RANCHO LEVEL _____ DRS _____ C/NC

- 1) Level - II Rancho Scale:
- 2) Functional cognitive-linguistic skills to participate in formal rehab program
- 3) Means to communicate basic needs
- 4) _____

SHORT TERM GOALS

- 1) Demonstrate 2 localized responses to auditory and/or tactile stimulation 3 of 5 sessions
- 2) Withdraw from tactile stim to facial area on 3 of 5 trials
- 3) Localize to auditory stimulation during 3 sessions
- 4) _____

उत्तर

ROOM #

REHABILITATION HOSPITAL

DISCHARGE SUMMARY ON: [REDACTED]

DATE OF ADMISSION: [REDACTED] 94

DISCHARGE DATE: [REDACTED] 94 (from Room [REDACTED]-Complex Medical Unit to Acute Rehab Unit)

HISTORY OF PRESENT ILLNESS: 62-year old female was previously on the skilled unit for quite some time is now admitted to [REDACTED] Rehabilitation Hospital. The patient was previously at [REDACTED] Hospital following motor vehicle accident. Injuries included right cerebral contusion with subarachnoid hemorrhage, facial laceration, right retinal detachment, fracture of the left forearm. Her hospital course was complicated by pulmonary infiltrates, herpes simplex antigen was positive on bronchoscopy washings. She was treated with anti-viral agents. She required a tracheostomy insertion of percutaneous G-tube on [REDACTED] 94. She had a burn injury to anterior chest and her abdomen. She was sent up on the skilled unit where she was stabilized and felt to have achieved significant recovery to be able to participate in acute rehab program.

ALLERGIES: None.

REVIEW OF SYSTEMS: Patient does not respond to questions when asked about review of systems.

FAMILY HISTORY: Unavailable.

SOCIAL HISTORY: Apparently a non-smoker, otherwise unavailable.

PHYSICAL EXAMINATION: Alert female in no apparent distress. She is aphasic. Blood pressure 140/90. She is afebrile.

HEENT: PERRLA EOMs intact. Nasal pharynx clear. There is an incision area of the intracranial pressure monitoring noted to be dry and healed. Patient tracks on examination. She is aphasic except for counting. She does not answer questions.

NECK: Supple.

PULMONARY: Lungs clear to auscultation and percussion.

CARDIAC: RR S1 S2.

ABDOMEN: Soft and non-tender. Bowel sounds noted in all quadrants.

EXTREMITIES: Moves all 4 extremities to command. Has good range of motion noted about the plantar flexors but this was following a motor point block done yesterday. Some increased tone noted about the right lower extremity. Fairly good range of motion noted.

REHABILITATION HOSPITAL
DISCHARGE SUMMARY ON: [REDACTED]
Page 2

HOSPITAL COURSE: Middle aged white female status post injury was admitted to the Complex Medical Unit. She was monitored closely from a medical standpoint. At this time opthamology was consulted and the patient was found to have a temporal retinal detachment into the peripheral temporal retina. She had some residual vitreous hemorrhage. She was also followed by Dr. [REDACTED] from a pulmonary perspective. ABGs were checked and the patient was weaned off of her Ventolin. She received motor point blocks to her bilateral lower extremities to maintain an increased range of motion. She was a Rancho Level 3 to 4 when she was on the Complex Medical Unit. The patient stabilized from a medical point of view and was transferred to the acute rehab facility. Condition at time of discharge was medically stable.

, M.D.

, M.D.

REHABILITATION HOSPITAL

HISTORY & PHYSICAL ON: [REDACTED] /94

CHIEF COMPLAINT: 62-year old female with history of traumatic brain injury is seen today for admission to [REDACTED] Rehabilitation Hospital.

HISTORY OF PRESENT ILLNESS: 62-year old female was previously on the skilled unit for quite some time is now admitted to [REDACTED] Rehabilitation Hospital. The patient was previously at [REDACTED] Hospital following motor vehicle accident. Injuries included right cerebral contusion with subarachnoid hemorrhage, facial laceration, right retinal detachment, fracture of the left forearm. Her hospital course was complicated by pulmonary infiltrates, herpes simplex antigen was positive on bronchoscopy washings. She was treated with anti-viral agents. She required a tracheostomy insertion of percutaneous G-tube on [REDACTED] /94. She had a burn injury to anterior chest and her abdomen. She was sent up on the skilled unit where she was stabilized and felt to have achieved significant recovery to be able to participate in-acute rehab program.

ALLERGIES: None.

REVIEW OF SYSTEMS: Patient does not respond to questions when asked about review of systems.

FAMILY HISTORY: Unavailable.

SOCIAL HISTORY: Apparently a non-smoker, otherwise unavailable.

PHYSICAL EXAMINATION: Alert female in no apparent distress. She is aphasic. Blood pressure 140/90. She is afebrile.

HEENT: PERRLA EOMS intact. Nasal pharynx clear. There is an incision area of the intracranial pressure monitoring noted to be dry and healed. Patient tracks on examination. She is aphasic except for counting. She does not answer questions.

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CARDIAC: RR S1 S2.

ABDOMEN: Soft and non-tender. Bowel sounds noted in all quadrants.

EXTREMITIES: Moves all 4 extremities to command. Has good range of motion noted about the plantar flexors but this was following a motor point block done yesterday. Some increased tone noted about the right lower extremity. Fairly good range of motion noted.

CLINICAL IMPRESSION: Middle-aged female with history of traumatic brain injury and retinal detachment is seen today for admission to [REDACTED] Rehabilitation Hospital. We will follow through with Dr. [REDACTED] recommendation concerning overnight stay at [REDACTED] Hospital for repair of retinal detachment. We will follow her closely throughout her hospital stay. Prognosis for recovery is fair.

, M.D.

, M.D.

Rehabilitation Hospital

, Nebraska

CHANGE OF STATUS:

██████████, a 62 year old female, was admitted to ██████████ Rehabilitation Hospital on ██████████-94. She had a primary diagnosis of a traumatic brain injury secondary to a motor vehicle accident. The CT scan indicated a right frontal parietal and temporal hemorrhagic contusion with some subarachnoid intraventricular hemorrhaging. Results of the initial communication assessment indicated general responses to most stimulus characterized by decreased oxygen saturation and increased posturing. Some localized responses to tactile stimulus were observed. The patient scored 28 on the Rappaport Coma Near Coma Scale (moderate coma).

THERAPY: The patient was seen for individual therapy beginning ██████████-94 and continuing through ██████████-94. The patient was also seen for individual dysphagia therapy beginning ██████████-94 and continuing through ██████████-94, at which time the patient was transferred to the Acute Rehab program.

PROGRESS: The patient made excellent progress on the Complex Medical and Rehabilitation Unit. At the time of transfer, the patient demonstrated behaviors associated with a Level IV on the ██████████ ██████████ Scale. The patient was inconsistently oriented to person. The patient was not oriented to place, date or situation. The patient demonstrated severely confused language with perseveration on counting. Severe receptive language deficits were evident with the patient following 0 out of 4 1-step directions and answering 1 out of 4 yes/no questions accurately on the day of transfer. The patient was able to read some single words aloud but comprehension was questionable. No graphics were elicited.

A bedside dysphagia evaluation indicated a slight delay of swallow with solid foods. The patient's vocal quality was noted to be wet after intake of nectar or thin liquids. The patient was then placed in 1-on-1 dysphagia therapy for trials of pureed food with nectar liquids. The patient was seen only 2 times for oral intake trials prior to transfer. The patient required verbal cue to swallow

pureed consistency food occasionally. The patient's swallow was timely and lung sounds remain clear.

STRENGTHS/ABILITIES: The patient demonstrated good oral motor skills with speech 100% intelligible. The patient has strong family support.

NEEDS: The family needs ongoing education in the areas of language, cognition and swallowing.

PATIENT AIMS: Unable to state.

PATIENT/FAMILY TRAINING: Several family members have received training or education regarding orientation, appropriate language and cognitive stimulation, and swallowing information on different occasions.

EQUIPMENT: A memory log was provided to the patient for orientation and memory assistance.

SUMMARY: At the time of transfer, the patient continued to demonstrate good progress in speech/language and swallowing therapy. It is recommended that the patient continue to be seen one time per day for individual speech/language therapy and one time a day for individual dysphagia therapy.

LONG TERM GOAL: (3 months)

1. The patient will demonstrate cognitive linguistic skills indicative of a Level VII on the [REDACTED] Scale.
2. The patient will effectively communicate wants and needs to family and friends.
3. The patient will be able to take adequate nutrition and hydration orally.

SHORT TERM GOALS: (2 weeks)

1. [REDACTED] will follow 3 out of 5 1-step directions with moderate to maximum cues on 3 occasions.
2. The patient will answer yes/no questions regarding biographical information and personal state with 60% accuracy or above on 3 occasions.
3. The patient will tolerate a pureed with nectar diet with nursing supervision without signs of aspiration or difficulty.

4. The patient will be oriented to place with moderate cues on 3 occasions.

(((-SLP)

[REDACTED], CCC-SLP
Speech/language Pathologist

Rehabilitation Hospital

., Nebraska

ADMISSION EVALUATION:

The patient is a 62 year old who is evaluated at the request of Dr. [REDACTED]. Patient is referred at this time secondary to a traumatic brain injury sustained on about [REDACTED] 1994.

MENTAL STATUS: Overall, the patient's effort and level of participation with respect to history-taking and test performance in this session was limited by cognitive impairments associated with the presenting problem. The patient is confused. Concentration and tracking are showing substantial impairment. Learning ability at this point is very limited. Spatial organizational functioning is not assessed. Affect is suggestive of internal agitation.

PATIENT STRENGTHS AND ABILITIES: Good family support.

PATIENT/FAMILY GOAL: The patient is unable to state an important goal at this time.

IMPRESSION: The patient's circumstances and psychological situation at this point are notable for the following areas of concern: disorientation, agitation, distractibility, impulsiveness, memory impairment, confusion, poor reality contact, communication limitations, limited planning/organizing skills, limited insight and reasoning and judgment.

Based on today's presentation, priority aims of practical psychotherapeutic and psychoeducational intervention addressing the concerns relevant to patient aim include: promotion of improved orientation, improved capacity for learning and remembering new things, improved capacity for organizing and sequencing information, greater insight into current abilities and needs, development of improved decision-making and problem-solving skills, improved compensation for impairments in a social context, acquisition of compensatory skills to reduce functional limitations, greater capacity to productively manage impulses, the ability to present self and experiences so as to minimize undesired reactions from others, and enhanced awareness of and ability to compensate for disability-related role competencies.

More detailed assessment will be scheduled as indicated over the course of the next few sessions, particularly in the areas of neuropsychological and emotional functioning.

GOALS: Short term goals include:

1. Patient will assist to the extent possible in ongoing identification of issues and goals.
2. Patient will experience improvement in concentration and tracking, capacity for new learning, insight into the current pattern of strengths and weaknesses, capacity for behavioral self-management, reasoning and judgment skills, and goal-setting skills.

Long term goals include:

1. Sufficient mastery of compensatory skills and strategies to permit attainment or maximal approximation of the patient's identified aim.
2. Satisfactory emotional adjustment to the challenges and losses associated with the patient's situation.
3. Provision of sufficient education and encouragement to family or other relevant social supports to promote optimal patient and social network adjustment.

PLAN:

1. Schedule patient for further assessment, as indicated by patient status and schedule.
2. Provide patient with strategies for managing active symptomatology during this initial adjustment interval.
3. Consult with other treatment team members to ensure an integrated approach.
4. In addition to individual treatment, schedule for the appropriate psychosocial support group to address as fully as possible the needs outlined above.

MD

Dr. [REDACTED], Ph.D.
Senior Psychologist
Certified Clinical Psychologist

OCCUPATIONAL THERAPY CHANGE OF STATUS
REHABILITATION HOSPITAL

NAME [REDACTED] ADMIT DATE [REDACTED] 1/1/99 ONSET DATE [REDACTED] 1/1/99
 DIAGNOSIS MVA; R cerebral contusion, subarachnoid hemorrhage, facial lacerations
 (R) retinal detachment, fx (L) forearm, tracheostomy Hx of burn to ant-chest & abdomen
 HISTORY
 PRECAUTIONS Impulsivity, not well for safety AGE 62 D.O.B. [REDACTED]
 BEHAVIOR: ALERT (YES) NO IMPULSIVE (YES) NO RANCHO LOS AMIGOS Level 4
 COMMENTS:

FUNCTIONAL STATUS

UX CARES	DEP	MAX	MOD	MIN/HOA	SBA	IND
LE CARES	DEP	MAX	MOD	MIN/HOA	SBA	IND
TRANSFERS-TOILET	DEP	MAX	MOD	MIN/HOA	SBA	IND
TRANSFERS-TUB	DEP	MAX	MOD	MIN/HOA	SBA	IND
BED MOBILITY	DEP	MAX	MOD	MIN/HOA	SBA	IND
KITCHEN/HOMEMAKING	NT DEP	MAX	MOD	MIN/HOA	SBA	IND

pt. restless, somewhat agitated. Fluctuating high tone present in R UE.

VISUAL/PERCEPTUAL/COGNITIVE Pt. is able to follow inconsistently one step motor-commands such as opening and closing of her fingers. Pt. responds to questions asked about the family inconsistently.

Driving_____ Did Drive: (Yes) No Wish to Drive Again: Yes No

CTEER

not able to
state at this time

UPPER EXTREMITY FUNCTION: (circle dominant upper extremity)

cast \rightarrow LUB

ROB

ZONE	PROM	AROM	MMT		ZONE	PROM	AROM	MMT
Norm	WFL	WFL	NT	Scapula: Elevation	Norm	Full Prom	WFL	NT
				Protraction	Red			
				Retraction	fine			
				Shoulder: Flex 0-180°	In			
				Ext 0-45°	Shld			
				Abd 0-180°				
				Int Rot 0-90°				
				Ext Rot 0-90°				
				H. Abd 0-90°				
				H. Add 0-45°				
				Elbow: Flex 0-150°				
				Ext 0				
				Forearm: Sup 0-80°				
				Pro 0-80°				
				Wrist: Flex 0-80°				
				Ext 0-70°				
				Gross Finger Flex				
				Gross Finger Ext				
				Opposition				

- Pt. at least 3/5 for gross

These groups not
tested

LUE	COORDINATION	RUE
NT	9 Hole Peg Test	NI
	Gross Control	
Ave	Gross Grasp	

Pinnae grasp not tested

Page two: Patient [REDACTED]

Some Instruction: 0

Family Training/Education: Head injury education

Equipment: Tongue Elastic Sock Shoe Walker Bath Hip Knee Denture
Laces Aid Horn Bag Sponge Book Book Brush

PATIENT'S PREFERENCES: Afternoons seem to be better session than mornings

PATIENT'S STRENGTHS/ABILITIES: Supportive Family/Friends

PATIENT'S GOAL: Not stated

ASSESSMENT OF PROGRESS TO DATE: Pt. maintained ROM of @ UE despite tone in extremity.
Number of rehab objectives met 1 goal not and part of another goal
Program completed: YES NO (explain) Pt. was transferred downstairs.

NEEDS ASSESSMENT/RECOMMENDATIONS FOR CONTINUED TREATMENT:

<input checked="" type="checkbox"/> ADL skills	<input checked="" type="checkbox"/> Feeding skills	REHABILITATION POTENTIAL <input checked="" type="checkbox"/> Guarded <input checked="" type="checkbox"/> Fair <input checked="" type="checkbox"/> Good <input checked="" type="checkbox"/> Excellent <input checked="" type="checkbox"/> Trial of recommended to determine
<input checked="" type="checkbox"/> RUE functioning	<input checked="" type="checkbox"/> LUE functioning	
<input checked="" type="checkbox"/> Cognitive/Perceptual skills	<input checked="" type="checkbox"/> Field cut	
<input checked="" type="checkbox"/> Perseveration	<input checked="" type="checkbox"/> Judgement	
<input checked="" type="checkbox"/> Mobility	<input checked="" type="checkbox"/> Transfers (tub/toilet)	
<input checked="" type="checkbox"/> Safety	<input checked="" type="checkbox"/> Memory	
<input checked="" type="checkbox"/> Other		

OTHER

☒ Pain ☒ Cast @ UE ☐ Splint ☐ Prosthesis ☐ Sling ☐ Braces

OCCUPATIONAL THERAPY PLAN

<input checked="" type="checkbox"/> ADL retraining	<input checked="" type="checkbox"/> Feeding training
<input checked="" type="checkbox"/> Increase upper extremity function	<input checked="" type="checkbox"/> NDT
<input checked="" type="checkbox"/> Cognitive/perceptual retraining	<input checked="" type="checkbox"/> Patient/family education
<input checked="" type="checkbox"/> Tub/toilet transfers	<input checked="" type="checkbox"/> Home program
<input checked="" type="checkbox"/> Community reintegration	<input checked="" type="checkbox"/> Adaptive equipment
<input checked="" type="checkbox"/> Safety training	<input checked="" type="checkbox"/> Home assess/visit
<input checked="" type="checkbox"/> Kitchen evaluation	<input checked="" type="checkbox"/> Energy conservation
<input checked="" type="checkbox"/> Upper extremity strengthening	

LONG TERM PROJECTIONS: (3 mos. weeks to min. @ level of function)

1. Improve cognition function to a level VI PLA. (Identify 2 adaptations & make home more acc.)
2. Pt. will require min. @ to complete oral hygiene, and grooming. (I self feeding)
3. Pt. will require min. @ for UE bathing. (min. @ home)
4. Attend to 30 minute cognitive retraining session < 3 verbal cues for redire.

SHORT TERM GOALS: (2 weeks @ UE still for ex com. w/ L5 per standard & testing)

1. Pt. will be oriented x3 @ environmental cueing during tx-session.
2. Pt. will complete 2 out of 3 hygiene tasks @ minimal verbal cueing by 2 wks.
3. Pt. will require mod @ to bathe UE @ min. verbal-cueing during tx session.
4. Pt. will transfer from w/c @ mat @ 1 max @.

Signature: [REDACTED]

Date: [REDACTED] / 94

REHABILITATION HOSPITAL PHYSICAL MEDICINE AND REHABILITATION
Nebraska [REDACTED] [REDACTED], M.D.
[REDACTED], M.D.
[REDACTED], M.D.

PATIENT NAME: [REDACTED] DATE: [REDACTED] 94

SPASTICITY MANAGEMENT CLINIC

SPASTICITY CLINIC EVALUATION AND PROCEDURE TODAY: Left APF permanent motor point blocks.

INDICATIONS: Reduction of severe tone causing equinovarus deformity.

NOTE: 7 mg Versed IM given by M.D. prior to procedure for sedation.

PROCEDURAL NOTE: [] The procedure, all side effects, indications and contraindications were explained and a written consent was obtained from [REDACTED], the patient/guardian.
[x] Written consent is on file.

The skin overlying the left popliteal fossa was prepped in the usual sterile fashion with Betadine and alcohol. Using the Teca Neurostimulator, the surface of the skin was electrically stimulated until the motor point areas were located. These were then marked in the usual fashion. Then using a Teflon coated needle and again the neurostimulator, the motor point was again located. After careful aspiration, a total of 0.5 cc. of 8% phenol was injected into or around the motor points of the following muscles and nerves.

COMPLICATIONS OF PROCEDURE: None. Patient tolerated procedure well.

POST BLOCK EXAMINATION: Moderate reduction of tone.

RECOMMENDATIONS:

1. Ice to the injected areas for 20 minutes now and again this evening for 20 minutes for 24 hours.
2. Tylenol 650mg po q 4 hours prn for 24 hours for pain.

FOLLOW UP: 1-week.

		RIGHT	LEFT
		#	#
		MPB	MPB
Gastrocnemius	L5-S2	2	
Soleus	"	2	
Flexor Dig.	S1-2	1	

[REDACTED], M.D.

REHABILITATION HOSPITAL PHYSICAL MEDICINE AND REHABILITATION
Nebraska [REDACTED], M.D.
[REDACTED], M.D.
[REDACTED], M.D.

PATIENT NAME: [REDACTED] DATE: [REDACTED]-94

SPASTICITY MANAGEMENT CLINIC

SPASTICITY CLINIC EVALUATION AND PROCEDURE TODAY: Right APF permanent motor point blocks.

INDICATIONS: Reduction of severe tone.

NOTE: Versed 7 mg given IM prior to procedure for sedation.

PROCEDURAL NOTE: [] The procedure, all side effects, indications and contraindications were explained and a written consent was obtained from [REDACTED], the patient/guardian.
[x] Written consent is on file.

The skin overlying the right popliteal fossa was prepped in the usual sterile fashion with Betadine and alcohol. Using the Teca Neurostimulator, the surface of the skin was electrically stimulated until the motor point areas were located. These were then marked in the usual fashion. Then using a Teflon coated needle and again the neurostimulator, the motor point was again located. After careful aspiration, a total of 0.5 cc. of 8% phenol was injected into or around the motor points of the following muscles and nerves.

COMPLICATIONS OF PROCEDURE: None. Patient tolerated procedure well.

POST BLOCK EXAMINATION: Moderate reduction of tone.

RECOMMENDATIONS:

1. Ice to the injected areas for 20 minutes now and again this evening for 20 minutes for 24 hours.
2. Tylenol 650mg po q 4 hours prn for 24 hours for pain.

FOLLOW UP: 2-weeks.

		RIGHT # MPB	LEFT # MPB
Gastrocnemius	L5-S2	2	
Soleus	"	2	
Flexor Dig.	S1-2	1	

[REDACTED] M.D.

REHABILITATION HOSPITAL

CYSTOMETROGRAM/ELECTROMYOGRAM INTRA-ABDOMINAL PRESSURE MONITORING
BLADDER EVALUATION ON: [REDACTED] - [REDACTED] 94

AGE: 62

REFERRAL DIAGNOSIS: Traumatic brain injury.

HISTORY: [REDACTED] is a 62-year old female with past medical history of motor vehicle accident on [REDACTED]-94 and resultant traumatic brain injury, now referred for possible neurogenic bladder evaluation.

MEDICATIONS AT THIS TIME INCLUDE:

1. Pepcid 20 mg po bid.
2. Propulsid 10 mg po qid.
3. Multivitamin with Mineral 1 po q day.
4. BuSpar 5 mg po bid.
5. Isopto Hyoscine 0.25% OD q day.
6. Moban 25 mg bid.

PHYSICAL EXAMINATION:

Anal Wink: Brisk.

BC-Reflex: Brisk

Cremasteric Reflex: N/A.

Voluntary Anal Sphincter Control: Moderate.

PROCEDURAL NOTE: Using the [REDACTED] Inc. Urodynamics equipment for water cystometry and intra-abdominal pressure monitoring: a double lumen 16 gauge. French foley catheter was inserted into the bladder under sterile technique; a rectal balloon was inserted into the rectum for intra-abdominal pressure monitoring. A Teflon coated needle for concentric EMG was inserted into the external urethral sphincter and connected to the Teca Te-4 electromyography equipment.

EMG EVALUATION: Revealed in the external urethral sphincter: No evidence of acute denervation seen.

Number of motor units per field: Normal. Amplitude: Normal.

Motor units: Normal, small.

Positive waves: None.

Fibrillations: None.

Bizarre High Frequency Discharge: None.

Voluntary Contraction: Moderate.

Voluntary Relaxation: Moderate.

DETRUSOR FUNCTION: At a rate of 15 cc. per minute of sterile normal saline, the patient's bladder was slowly filled. The patient had first sensation of filling at 250 cc.; first urge to void at 250 cc. Bladder contraction occurred at 275 cc. with relative pressures of 40-50 cm. of water pressure. Leakage around the catheter was none. The patient was able to suppress for approximately 1-minute. Maximum volume instilled was 300 cc.

REHABILITATION HOSPITAL
CYSTOMETROGRAM/ELECTROMYOGRAM INTRA-ABDOMINAL PRESSURE MONITORING
BLADDER EVALUATION ON: [REDACTED] - [REDACTED] 94
Page 2

EMG of the external urethral sphincter activity revealed: Normal response to filling and emptying.

IMPRESSION: Spastic detrusor with overlying cognitive impairment predominating.

RECOMMENDATIONS: See orders in chart.

FOLLOW UP: 2-3 weeks.

[REDACTED], M.D.

REHABILITATION HOSPITAL

DISCHARGE SUMMARY ON: [REDACTED]

DATE OF ADMISSION: [REDACTED] 94

DISCHARGE DATE: [REDACTED] 94 (from Room [REDACTED] Acute Rehab to home)

HISTORY OF PRESENT ILLNESS: 62-year old female was previously on the skilled unit for quite some time is now admitted to [REDACTED] Rehabilitation Hospital. The patient was previously at [REDACTED] Hospital following motor vehicle accident. Injuries included right cerebral contusion with subarachnoid hemorrhage, facial laceration, right retinal detachment, fracture of the left forearm. Her hospital course was complicated by pulmonary infiltrates, herpes simplex antigen was positive on bronchoscopy washings. She was treated with anti-viral agents. She required a tracheostomy insertion of percutaneous G-tube on [REDACTED] 94. She had a burn injury to anterior chest and her abdomen. She was sent up on the skilled unit where she was stabilized and felt to have achieved significant recovery to be able to participate in acute rehab program.

ALLERGIES: None.

REVIEW OF SYSTEMS: Patient does not respond to questions when asked about review of systems.

FAMILY HISTORY: Unavailable.

SOCIAL HISTORY: Apparently a non-smoker, otherwise unavailable.

PHYSICAL EXAMINATION: Alert female in no apparent distress. She is aphasic. Blood pressure 140/90. She is afebrile.

HEENT: PERRLA EOMs intact. Nasal pharynx clear. There is an incision area of the intracranial pressure monitoring noted to be dry and healed. Patient tracks on examination. She is aphasic except for counting. She does not answer questions.

NECK: Supple.

PULMONARY: Lungs clear to auscultation and percussion.

CARDIAC: RR S1 S2.

ABDOMEN: Soft and non-tender. Bowel sounds noted in all quadrants.

EXTREMITIES: Moves all 4 extremities to command. Has good range of motion noted about the plantar flexors but this was following a motor point block done yesterday. Some increased tone noted about the right lower extremity. Fairly good range of motion noted.

REHABILITATION HOSPITAL
DISCHARGE SUMMARY ON: [REDACTED]
Page 2

HOSPITAL COURSE: Middle aged female with history of traumatic brain injury, retinal detachment admitted to [REDACTED] Rehabilitation Hospital. The patient was extremely agitated upon admission. She was put into a bed. Her agitation was controlled from a behavioral perspective as well as with prn Ativan. Patient began hallucinating. She was put on [REDACTED] by [REDACTED]. She did very well overall. She was also treated for agitation on a routine basis with Buspar. The patient made very good gains overall and she got to the point where she continued to have word finding difficulties, but was able to verbalize and had good automatic behavior. Tone was followed and motor point blocks were done as needed. She was confused during most of time on the acute rehab but toward the end of her stay was no longer hallucinating and off the Moban. She was also completely off the Ativan.

The patient was discharged in stable medical condition and will be followed up prn in the outpatient clinic.

, M.D.

, M.D.

Rehabilitation Hospital

, Nebraska

CHANGE OF STATUS:

██████████ is a 62-year-old female admitted to the acute rehab program at ██████████ Rehabilitation Hospital ██████████/94 from the complex medical and rehab unit. She has a medical diagnosis of traumatic brain injury secondary to motor vehicle accident. A CT scan indicated right frontal parietal and temporal hemorrhagic contusion with subarachnoid intraventricular hemorrhaging. She demonstrated characteristics associated with a Level IV on the ██████████ Scale of Cognitive Functioning at the time of her transfer to the acute program.

THERAPY: ██████████ continued to receive individual speech/language therapy and was enrolled in speech lab and orientation group. The focus of therapy was to improve orientation, attention and concentration, and expressive speech and language.

PROGRESS: ██████████ made good progress in speech/language therapy. She currently demonstrates characteristics of a Level VI on the ██████████ Scale of Cognitive Functioning. Receptively, she follows two- to three-step commands when given in sequential order. Her yes/no responses continue to be unreliable at times. She appears to have little difficulty with comprehension ~~and~~ concrete conversations.

██████████ is verbose and tangential, especially when she is anxious. Although she demonstrates moderate to severe word-finding deficits, she is beginning to use strategies with cues; i.e., naming items by function. She is able to complete very simple word-finding tasks with minimal cues.

██████████ complains of poor vision and wears glasses. She is able to complete simple reading and graphic tasks. Reading comprehension is accurate for the sentence level or for very short paragraphs. She demonstrates poor recall of written information. ██████████ graphically produces familiar and simple phrases and short sentences. Legibility is reduced, possibly due to visual spatial and acuity problems.

██████████ attends to 30-minute therapy sessions. Although she is perseverative, improvements have been noted in this area. ██████████ also

has improved greatly in orientation. She independently refers to her memory log for her schedule and other important information with minimal to moderate cues to locate correct information. She is oriented to date 100 percent of the time. [REDACTED] requires maximum cues for functional reasoning and problem-solving tasks.

[REDACTED] presented with dysphagia issues when transferred to acute rehab. All swallowing has been resolved, and she eats independently with minimal supervision at the time of discharge.

STRENGTHS: [REDACTED] has excellent family support. She was reported to be very appropriate and much more focused during home visits. She independently refers to her memory log for a variety of information. She remembers significant information for over a 24-hour period.

NEEDS: [REDACTED] is moderately aphasic. Comprehension is concrete and expressive language is tangential and perseverative. She demonstrates poor memory skills for learning new information.

EQUIPMENT: [REDACTED] was issued a memory log.

FAMILY TRAINING: [REDACTED] husband, [REDACTED] has attended therapies and rehabilitation meetings.

SUMMARY AND RECOMMENDATIONS: [REDACTED] made good progress on acute rehab. She is moderately aphasic and demonstrates characteristics of a Level VI on the [REDACTED] Scale of Cognitive Functioning. She comprehends concrete conversation. Her expressive language is characterized ^{as} ~~and~~ tangential and perseverative. She demonstrates no dysphagia at this time. Motor speech is well within normal limits. She is discharged to live at home with her husband, [REDACTED] in [REDACTED] Nebraska. It is recommended that she continue to receive daily speech/language therapy with an emphasis on functional speech/language for the community environment.

LONG-TERM GOALS: (8-10 weeks)

1. Communicate wants/needs in community environment with semi-supervision.
2. Cognitive linguistic skills to complete simple functional tasks in the home with semi-supervision.

SHORT-TERM GOALS: (2 weeks)

1. Patient will continue to be oriented x 3 eighty percent of the

time with use of a memory log given minimal cues.

2. Patient will recall new information presented verbally or written following a 10- to 15-minute period one time per session.

3. Patient will complete a variety of sequencing activities with moderate cues; i.e., cards, steps to events.

[REDACTED] MS, CCC-SLP

Rehabilitation Hospital

, Nebraska

DISCHARGE SUMMARY:

DISPOSITION: Patient discharges to home with husband with moderate assistance.

TREATMENT: Treatment provided included:

1. Cognitive-behavioral therapy five times per week.
2. Family therapy as needed.

SHORT-TERM GOALS: Patient met three of three short-term goals, including:

1. Patient improved her score on a sequencing task (ordering objects by size) from 18 percent to 36 percent.
2. Patient improved her score on a memory recall task from 0 percent to 68 percent.
3. Patient labeled actual objects with 80 percent accuracy.

LONG-TERM GOALS: Patient met three of three long-term goals, including:

1. Sufficient mastery of compensatory skills to permit attainment or maximal approximation of the patient's identified aim.
2. Satisfactory emotional adjustment to the challenges and losses associated with the patient's situation.
3. Provision of sufficient education and encouragement to family or other relevant social supports to promote optimal patient and social network adjustment.

IMPRESSION: Patient discharges from cognitive-behavioral therapy with improved cognitive efficiency. She is emotionally stable at this time.

PATIENT/FAMILY TRAINING: Issues relevant to successful post discharge adjustment were explored with the patient/family/caregivers, including plans for patient's outpatient therapy program.

PATIENT/FAMILY GOAL AT DISCHARGE: Family hopes patient can regain as much functioning as possible.

RECOMMENDATIONS: Patient/family were encouraged to contact me as needed for follow-up or referral assistance.

DISPOSITION: Change of status to outpatient. First scheduled outpatient visit on ~~XXXX~~/94.

, M.S.

, M.S.

Counselor

PW

, Ph.D.

Senior Psychologist

Licensed Psychologist

**OCCUPATIONAL THERAPY CHANGE OF STATUS
REHABILITATION HOSPITAL**

NAME [REDACTED] ADMIT DATE 1/1/94 ONSET DATE 1/1/94
 DIAGNOSIS RVA, (R) cerebral contusion, subarachnoid hemorrhage
 HISTORY burn to ant-chest & abdomen
 PRECAUTIONS impulsive at times; transfers + ambu AGE 62 D.O.B.
 BEHAVIOR: ALERT YES NO IMPULSIVE YES NO RANCHO LOS AMIGO VII
 COMMENTS:

FUNCTIONAL STATUS

UE CARES	DEP	MAX	MOD	MIN/HOA	<u>SBA</u>	IND	
LE CARES	DEP	MAX	MOL	MIN/HOA	<u>SBA</u>	IND	
TRANSFERS-TOILET	DEP	MAX	MOD	MIN/HOA	<u>SBA</u>	IND	
TRANSFERS-TUB	DEP	MAX	MOD	MIN/HOA	<u>SBA</u>	IND	
BED MOBILITY	DEP	MAX	MOD	MIN/HOA	<u>SBA</u>	IND	
KITCHEN/HOMEMAKING	NT	DEP	MAX	MOD	MIN/HOA	<u>SBA</u>	IND
UE FUNCTION	<u>WFL for age</u>						

VISUAL/PERCEPTUAL/COGNITIVE PT cl. very poor eye sight which she perseverates on SBA and occasional HOA required for pt to perform basic task. 2° v. balance and cognitive deficits (ie memory, sequencing, etc)

Driving Did Drive: (Yes) No Wish to Drive Again: (Yes) No

CTHER

UPPER EXTREMITY FUNCTION: (circle dominant upper extremity)

LUE				RUE			
TOPE	PROM	AROM	MMT	TOPE	PROM	AROM	MMT
		<u>WNL</u>	<u>for age</u>			<u>WNL</u>	<u>for age</u>
			Scapula: Elevation				
			Protraction				
			Retraction				
			Shoulder: Flex 0-180°				
			Ext 0-45°				
			Abd 0-180°				
			Int Rot 0-90°				
			Ext Rot 0-90°				
			H. Abd 0-90°				
			H. Add 0-45°				
			Elbow: Flex 0-150°				
			Ext 0				
			Forearm: Sup 0-80°				
			Pro 0-80°				
			Wrist: Flex 0-80°				
			Ext 0-70°				
			Gross Finger Flex				
			Gross Finger Ext				
		<u>V</u>	Opposition			<u>V</u>	

LUE	COORDINATION	RUE
NT 2° poor vision	9 Hole Peg Test	NT 2° poor vision
<u>WFL</u>	Gross Control	<u>WFL</u>
Ave ↓	Gross Grasp	Ave ↓

Page two: Patient

Home Instruction: Pt/husband encouraged to organize pts daily routine in home environment.

Family Training/Education: Pt's husband has been present for tx sessions on occasion + attended home visit. He is aware of pts level of assistance required physically + cognitively.

Equipment: Tongs Elastic Sock Shoe Walker Bath Hip Knee Denture
NA Laces Aid Horn Bag 'Sponge Book Book Brush

PATIENT'S PREFERENCES: none stated

PATIENT'S STRENGTHS/ABILITIES: family support overall strength

PATIENT'S GOAL: to return home to husband

ASSESSMENT OF PROGRESS TO DATE:

3) Number of rehab objectives met *Pt cont. to make improvements in cognitive status and functional performance of tasks*

Program completed: YES

NO (explain)

NEEDS ASSESSMENT/RECOMMENDATIONS FOR CONTINUED TREATMENT

<input checked="" type="checkbox"/> ADL skills	<input type="checkbox"/> Feeding skills	REHABILITATION POTENTIAL
<input type="checkbox"/> RUE functioning	<input type="checkbox"/> LUE functioning	<input type="checkbox"/> Guarded
<input checked="" type="checkbox"/> Cognitive/Perceptual skills	<input type="checkbox"/> Field cut	<input type="checkbox"/> Fair
<input type="checkbox"/> Perseveration	<input type="checkbox"/> Judgement	<input checked="" type="checkbox"/> Good
<input type="checkbox"/> Mobility	<input checked="" type="checkbox"/> Transfers (tub/toilet)	<input type="checkbox"/> Excellent
<input checked="" type="checkbox"/> Safety	<input type="checkbox"/> Memory	<input type="checkbox"/> Trial of
<input type="checkbox"/> Other		recommended to determine

OTHER

<input type="checkbox"/> Pain	<input type="checkbox"/> Splint	<input type="checkbox"/> Sling
<input type="checkbox"/> Cast	<input type="checkbox"/> Prosthesis	<input type="checkbox"/> Braces

OCCUPATIONAL THERAPY PLAN

<input checked="" type="checkbox"/> ADL retraining	<input type="checkbox"/> Feeding training
<input checked="" type="checkbox"/> Increase upper extremity function	<input type="checkbox"/> NDT
<input checked="" type="checkbox"/> Cognitive/perceptual retraining	<input checked="" type="checkbox"/> Patient/family education
<input checked="" type="checkbox"/> Tub/toilet transfers	<input type="checkbox"/> Home program
<input checked="" type="checkbox"/> Community reintegration	<input checked="" type="checkbox"/> Adaptive equipment
<input checked="" type="checkbox"/> Safety training	<input type="checkbox"/> Home assess/visit
<input checked="" type="checkbox"/> Kitchen evaluation	<input type="checkbox"/> Energy conservation
<input type="checkbox"/> Upper extremity strengthening	

LONG TERM PROJECTIONS: (8-10 weeks to supervised cues level of function)

1. Pt will require occ. cues to use compensatory strategies in daily activities
2. Pt. will require occ. supervision in completing simple homemaking tasks
3. such as vacuuming, dusting and cooking simple snacks.
- 4.

SHORT TERM GOALS: (2 weeks)

1. Pt. will require frequent verbal cues to refer to memory log for requested info
2. Pt. will require supervision and frequent verbal cues to complete simple homemaking
3. Pt. will attend to task for 3 min. with one verbal cue.
- 4.

Signature: _____

OTR/L

Date: _____

1/94

BODY DIAGRAMS AND MEDICAL RECORDS
FROM
UPDATED MEDICAL FACILITY SUBMISSION¹⁵

¹⁵ Specifically, these body diagrams are based on the medical records that this contractor subsequently obtained from the initial treatment medical facility; thus, these records are treated as an updated submission.

OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

- Massive facial trauma (NN)

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

- Hematoma, (R) forehead (NN)
- (R) eye extremely swollen (NN)

- Contusion face (ET)

- Laceration, large (6cm) (R) facial area (cheek) extending down to bone (ET, NN, OS)

- Large amount of blood in airway, coming from esophagus (ET)

- Laceration, full thickness (R) lip (OS)

- Contusion (ET)

- Contusions chest (ET, NN)

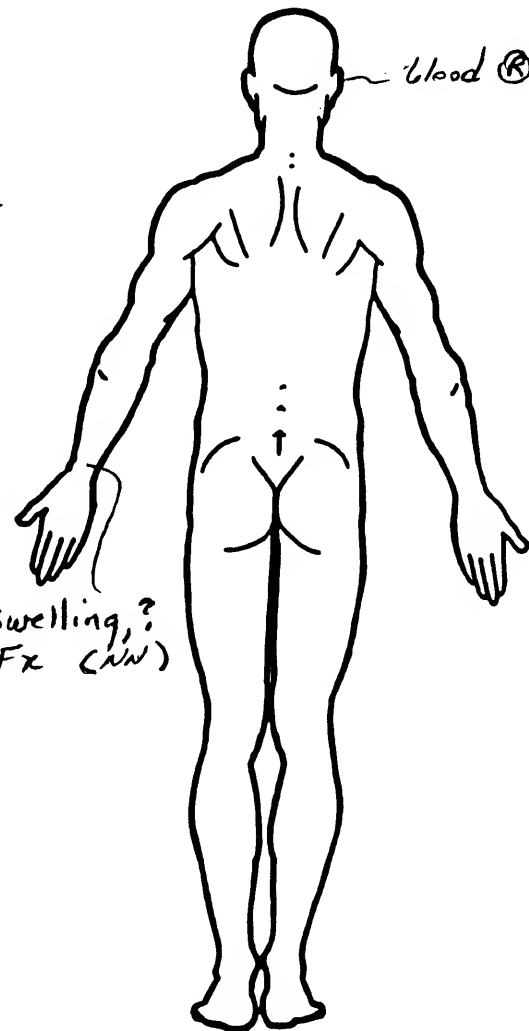
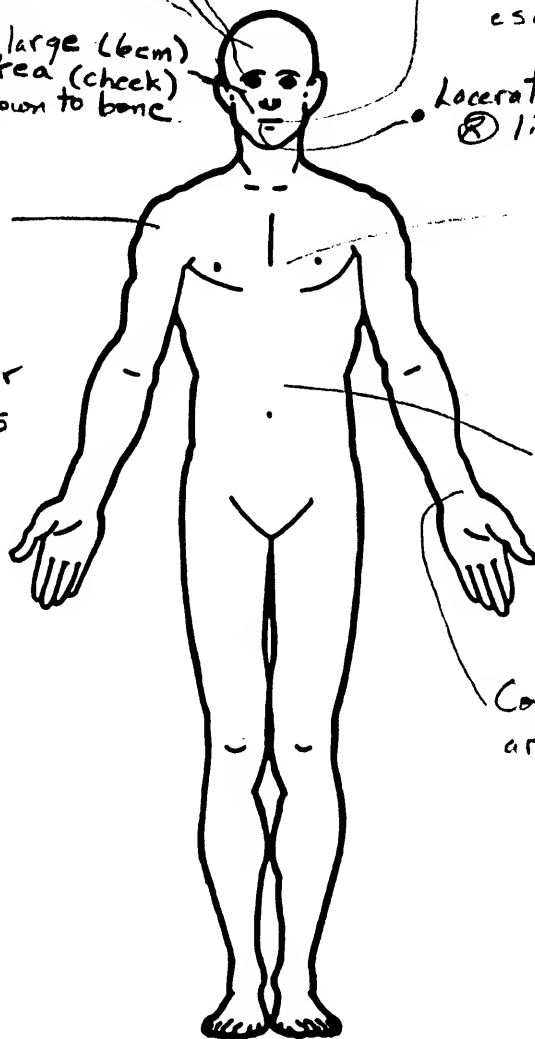
- Crepitus over (R) lower ribs (ET)

- Contusions upper abdomen (ET)

- Contusion, large, (L) arm/wrist (ET, NN)

- Swelling, ? Fx (NN)

- blood (R) ear (NN)



UPDATED MEDICAL
FACILITY SUBMISSION

SOURCE OF INJURY DATA

OFFICIAL

- (1) Autopsy records with or without hospital/medical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

UNOFFICIAL

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify): _____
- (9) Police

INJURY SOURCE

FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (16) Driver side air bag compartment cover
- (17) Passenger side air bag compartment cover
- (18) Windshield reinforced by exterior object (specify): _____
- (19) Other front object (specify): _____

LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A (A1/A2)-pillar
- (23) Left B-pillar
- (24) Other left pillar (specify): _____

- (25) Left side window glass or frame
- (26) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (27) Other left side object (specify): _____

- (28) Left side window sill

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A (A1/A2)-pillar
- (33) Right B-pillar
- (34) Other right pillar (specify): _____

- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (37) Other right side object (specify): _____

- (38) Right side window sill

INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar or door frame attachment point
- (43) Other restraint system component (specify): _____
- (44) Head restraint system
- (45) Air bag (use codes "16" and "17" for injuries sustained from air bag compartment covers)
- (46) Other occupants (specify): _____
- (47) Interior loose objects
- (48) Child safety seat (specify): _____
- (49) Other interior object (specify): _____

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

- (60) Backlight (rear window)

- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): _____

EXTERIOR of OCCUPANT'S VEHICLE

- (66) Hood
- (66) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or trees (specify): _____
- (68) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edges
- (72) Other front of vehicle (specify): _____

- (73) Hood
- (74) Hood ornament
- (75) Windshield, roof rail, A-pillar
- (76) Side surface
- (77) Side mirrors
- (78) Other side protrusions (specify): _____

- (79) Rear surface
- (80) Undercarriage
- (81) Tires and wheels
- (82) Other exterior of other motor vehicle (specify): _____

- (83) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (84) Ground
- (85) Other vehicle or object (specify): _____
- (86) Unknown vehicle or object

NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify): _____
- (93) Air bag exhaust gases
- (97) Injured, unknown source

INJURY SOURCE CONFIDENCE LEVEL

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

DIRECT/INDIRECT INJURY

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

OCCUPANT INJURY CLASSIFICATION

Body Region

- (1) Head
- (2) Face
- (3) Neck
- (4) Thorax
- (5) Abdomen
- (6) Spine
- (7) Upper Extremity
- (8) Lower Extremity
- (9) Unspecified

Type of Anatomic Structure

- (1) Whole Area
- (2) Vessels
- (3) Nerves
- (4) Organs (includes muscles/ligaments)
- (5) Skeletal (includes joints)
- (6) Head - LOC
- (9) Skin

Specific Anatomic Structure

- Whole Area
- (02) Skin - Abrasion
- (04) Skin - Contusion
- (06) Skin - Laceration
- (08) Skin - Avulsion
- (10) Amputation
- (20) Burn
- (30) Crush
- (40) Degloving
- (50) Injury - NFS
- (90) Trauma, other than mechanical

Head - LOC

- (02) Length of LOC
- (04, 06, 08) Level of Consciousness
- (10) Concussion

Spine

- (02) Cervical
- (04) Thoracic
- (06) Lumbar

Vessels, Nerves, Organs, Bones,

Joint are assigned consecutive two digit numbers beginning with 02

Level of Injury

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

Abbreviated Injury Scale

- (1) Minor injury
- (2) Moderate injury
- (3) Serious injury
- (4) Severe injury
- (5) Critical injury
- (6) Maximum (untreatable)
- (7) Injured, unknown severity

Aspect

- (1) Right
- (2) Left
- (3) Bilateral
- (4) Central
- (5) Anterior
- (6) Posterior
- (7) Superior
- (8) Inferior
- (9) Unknown
- (0) Whole region

• Unrestrained driver (NN)

OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

☐ No

☒ Yes

Blood Alcohol
Level (mg/dl)

BAL = 0

< 10 mg/dl
(DS)

Glasgow Come
Scale Score

GCSS = 7
(NN)

Units of Blood
Given

Units = 4

(DS) [2 94
2 94]

Arterial Blood
Gases

pH = 7.72

PO₂ = 176

PCO₂ = 12

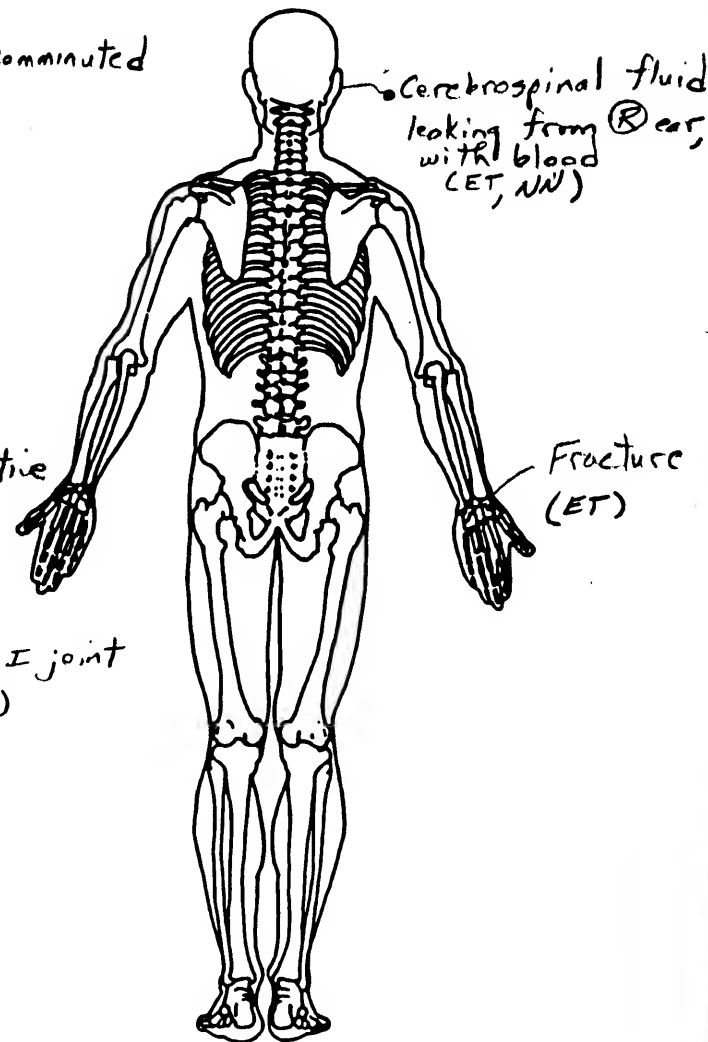
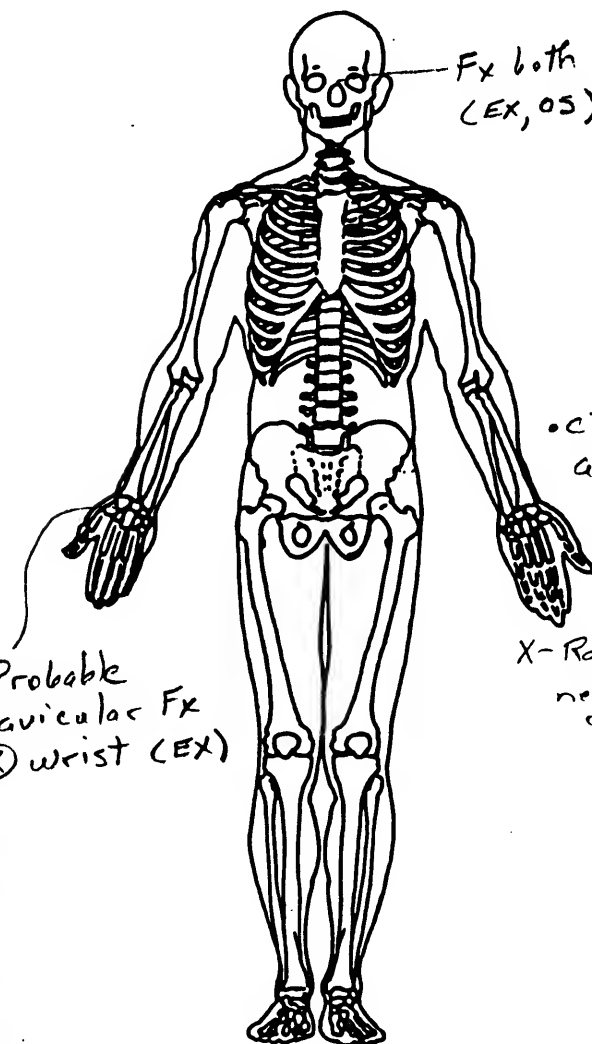
HCO₃ = 16

• 3rd reading
was lowest
(DS)

• Restrained driver
(ET, EN)

• Air Bag Deployed
(ET, EN)

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



X-Ray: Hips/SI joint
negative (EX)

UPDATED MEDICAL
FACILITY SUBMISSION

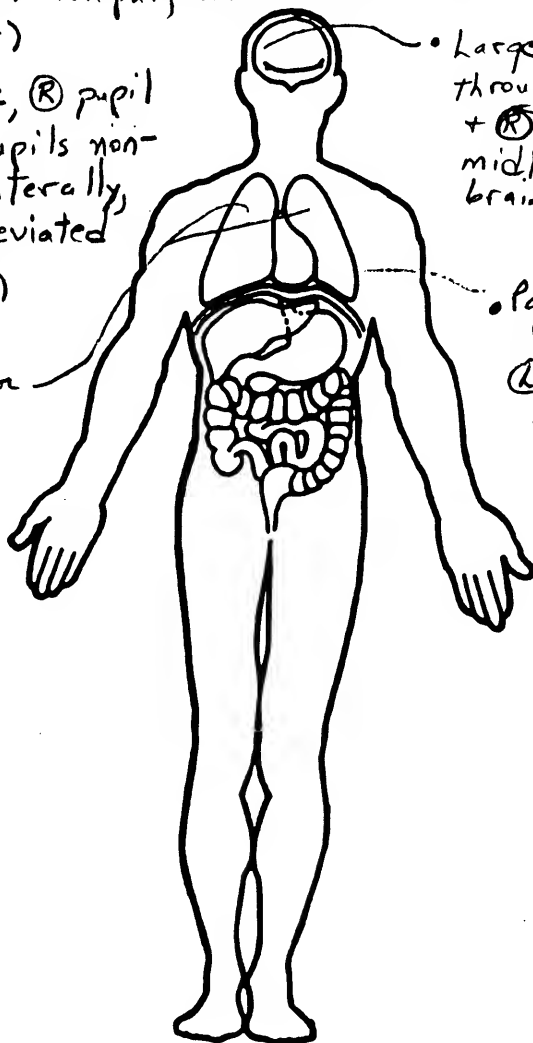
OFFICIAL INJURY DATA — INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

- Unconscious @ scene on arrival with non purposeful movements (ET)

- Combative, (R) pupil dilated, pupils non-reactive bilaterally, both eyes deviated to (R) (ET)

- Pneumonitis or infiltrates bilateral upper lobes of lungs (PX)



- Large hemorrhagic contusion throughout (R) temporal lobe + (R) parietal lobe, no significant midline shift or evidence of brain herniation (CT-scan: EX)

- Partial collapse (L) lung with (L)ward mediastinal shift (EX)

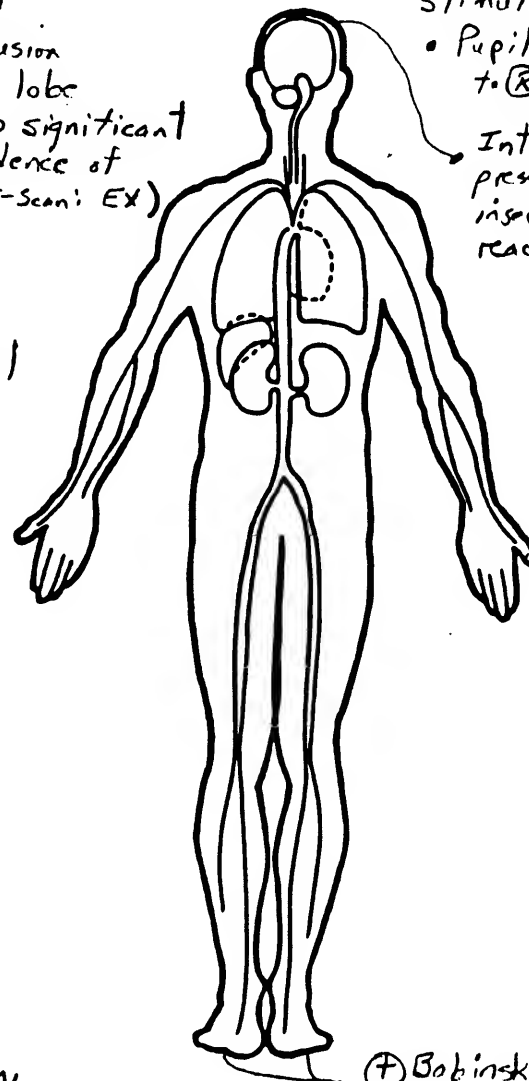
- ↓ LOC (ET)

- CHI (EN)

- Unconscious but responds to painful stimuli (NN)

- Pupils deviated to (R) (NN)

- Intracranial pressure monitor inserted—initial reading = 12 (NN)



- (R) Bobinski (ET)

UPDATED MEDICAL
FACILITY SUBMISSION

TRIAGE TIME: _____
☐ Nonurgent
☐ Urgent
☐ Emergency
Presenting Complaint:

HOSPITAL

NOTIFICATION
☐ Law Enforcement
☐ Rape Crisis
☐ Animal Control

Current Meds <i>unk</i> ϕ	Allergies <i>unk</i> ϕ	Tetanus Status <i>unk</i>
Triage Nurse <i>[redacted]</i>	Time <i>1240</i>	T <i>95</i>
Date of Onset/Accident <i>[redacted]</i>	P <i>88</i>	R <i>30</i>
Chief Complaint/Mechanism Injury <i>MVA - Trauma</i> <i>protocol - unrestrained driver -</i> <i>[redacted] RN</i>	B/P <i>146/90</i>	B/P <i>923/55</i>

Time seen by physician _____
HISTORY/PHYSICAL

LAB	RESULTS
ERP HP Lytes Glucose Analyse UA Serum Preg. ABG Cardiac Profile Trauma Profile OTHER:	
<i>Oximetry</i> - <i>99%</i>	
X-RAY	RESULTS
<i>CXR</i> <i>ABD Series</i> <i>C-Spine</i> OTHER: <i>pelvis</i> <i>Legs</i>	
To X-Ray _____ Return _____	
<i>EKG</i>	Results
NOTIFIED DOCTOR: _____ TIME: _____	

DIAGNOSIS

TREATMENT/INSTRUCTIONS

CONDITION ON DISCHARGE/TRANSFER: ☐ IMPROVED ☐ GOOD ☐ FAIR ☐ SERIOUS ☐ CRITICAL

DESCRIPTION	CODE	DISCHARGE SUMMARY
EMERGENCY ROOM		<input checked="" type="checkbox"/> ADMITTED <i>1540</i> (TIME)
PHYSICIAN SERVICE - DEPT. 2050		<input type="checkbox"/> TRANSFERRED <i>[redacted]</i>
		<input type="checkbox"/> EXPIRED
		Take Home Rx <input type="checkbox"/> Filled <input type="checkbox"/> Unfilled
Nurse <i>[redacted] BK</i>		METHOD OF DISCHARGE: <input type="checkbox"/> Ambulatory <input type="checkbox"/> Wheelchair <input type="checkbox"/> Crutches <input type="checkbox"/> Carried <input type="checkbox"/> Ambulance
Emergency Physician <i>[redacted]</i>		ACCOMPANIED BY: <input type="checkbox"/> Family / Other <input type="checkbox"/> Law Enforcement
Attending Physician <i>[redacted]</i>		

14

OCCURRENCE

FAMILY NOTIFIED

Last Meal: Time unkDate: 12/14 Time: 1240 Yes ☒ Person husband

Content: _____

No ☐ Other ☐Weight _____ Actual/Stated Unknown ☐Past Medical History: unknown☐ None Available

Mechanism Injury:

1240 Pt brought in by [redacted] - MVA - Street
Trauma - facial laceration - CHT - CSF from
R knee - finger laceration to R cheek - spinal fluid
swelling to L forearm - possible fx - ? pelvic fx
Contusion across chest. massive facial trauma
[redacted] R.D.

(Restrainted driver - air bag deployed).

SEVERITY SCORE

Dismissal
from
E.S.

Visual Acuity

L	R

IMMOBILIZATION

PTA	ES
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

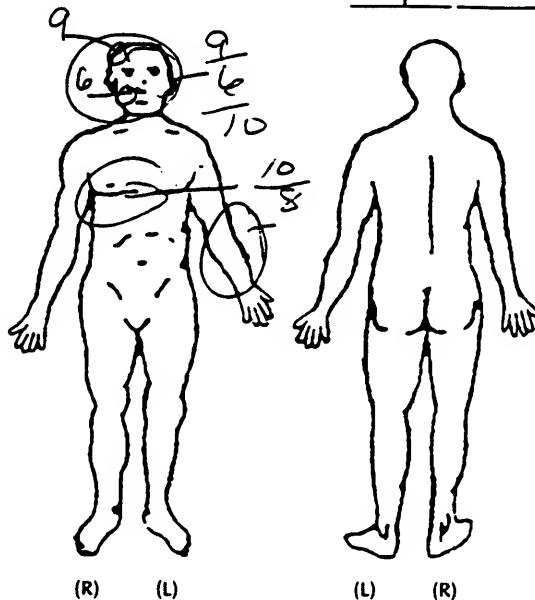
E.S. VALUABLE CHECKLIST

<input type="checkbox"/> Belt	<input type="checkbox"/> Partial Plate
<input checked="" type="checkbox"/> Bra	<input checked="" type="checkbox"/> Purse
<input type="checkbox"/> Cane	<input checked="" type="checkbox"/> Rings <u>2</u>
<input type="checkbox"/> Coat	<input type="checkbox"/> Robe
<input type="checkbox"/> Contacts	<input type="checkbox"/> Scarf
<input type="checkbox"/> Corsette	<input checked="" type="checkbox"/> Shirt
<input type="checkbox"/> Dentures, U, L	<input type="checkbox"/> Shoes
<input type="checkbox"/> Dress	<input type="checkbox"/> Slacks
<input type="checkbox"/> Earrings	<input type="checkbox"/> Slip
<input type="checkbox"/> Glasses	<input type="checkbox"/> Slippers
<input type="checkbox"/> Gloves	<input type="checkbox"/> Socks
<input type="checkbox"/> Hat	<input type="checkbox"/> Suitcase
<input type="checkbox"/> Jeans	<input type="checkbox"/> Suspenders
<input type="checkbox"/> Keys	<input type="checkbox"/> Sweater
<input type="checkbox"/> Money \$	<input type="checkbox"/> T-shirt
<input type="checkbox"/> Medication	<input type="checkbox"/> Underwear
<input type="checkbox"/> Necklace	<input type="checkbox"/> Vest
<input type="checkbox"/> Nightgown	<input type="checkbox"/> Walker
<input type="checkbox"/> Nylons	<input type="checkbox"/> Wallet
<input type="checkbox"/> Pajamas	<input type="checkbox"/> Watch

Admission

Glasgow Coma Scale

4	Spontaneous	_____
3	To voice	_____
2	To pain	_____
1	None	<input checked="" type="checkbox"/>
Verbal Response		
5	Oriented	_____
4	Confused	_____
3	Inappr. words	_____
2	Incompr. words	<input checked="" type="checkbox"/>
1	None	_____
Motor Response		
6	Obeys cmmds	_____
5	Localizes	_____
4	Withdraws	<input checked="" type="checkbox"/>
3	Abnormal flex	_____
2	Abnormal exten	_____
1	None	_____
Respiratory Effort		
_____	Normal	_____
_____	Shallow	_____
Capillary Refill		
_____	Normal	<input checked="" type="checkbox"/>
_____	Delayed	_____
_____	Absent	_____



1. 1° burn
2. 2° burn
3. 3° burn
4. Avulsion
5. Abrasion
6. Laceration
7. Puncture
8. Contusion
9. Swelling
10. Ecchymosis
11. Absent Pulse
12. Decreased Pulse
13. Absent Sensation
14. Decreased Sensation
15. Paralysis
16. Weakness
17. Pain
18. Dislocation
19. Deformity
20. Fracture
21. Sprain/Strain
22. Rash
23. _____

DESTINATION

Valuables sent:

<input type="checkbox"/> With Family	<input type="checkbox"/> To OR
<input type="checkbox"/> With Friend	<input type="checkbox"/> To Safe
<input type="checkbox"/> With Police	<input type="checkbox"/> No Clothes
<input checked="" type="checkbox"/> To Floor	<input type="checkbox"/> Cut Off

RESTRAINTS Yes No Unk

Helmet	_____	_____	_____
Lap Belt	_____	<input checked="" type="checkbox"/>	_____
Shoulder Belt	_____	<input checked="" type="checkbox"/>	_____
Child Restraint	_____	_____	_____
Air Bag	<input checked="" type="checkbox"/>	_____	_____

Location in Vehicle:



NURSING SAFETY INTERVENTIONS/PRECAUTIONS

<input checked="" type="checkbox"/> Cart	<input checked="" type="checkbox"/> Side rails up	<input type="checkbox"/> Wrist restraints	<input type="checkbox"/> Wounds cleansed with <u>Betadine</u>
<input type="checkbox"/> Exam table	<input type="checkbox"/> Held	<input type="checkbox"/> Waist restraints	<input type="checkbox"/> Trendelenberg
<input type="checkbox"/> Suicide precaution	<input type="checkbox"/> Call light	<input type="checkbox"/> Padded side rails	<input type="checkbox"/> Head of bed elevated <u>0</u> degrees
<input type="checkbox"/> Procedure explained	<input type="checkbox"/> Reassurance	<input checked="" type="checkbox"/> Warm blanket <u>4</u>	<input type="checkbox"/> Infrared lights
		<input type="checkbox"/> Seizure precautions	<input type="checkbox"/> Isolation

EMERGENCY SERVICE
 ADMISSION
 NURSES NOTES

AIRWAY/VENTILATION

CIRCULATION

NEUROLOGICAL

GASTROINTESTINAL

Identify Initials by
Signature and Title

Nursing Intervention

Nurses Initials

R M (MAP= 81)
T=14:23 (HR= 53)
122/ 66

R M (MAP= 74)
T=14:42 (HR= 53)
100/ 00
R M (MAP= 96)
T=14:44 (HR= 53)
100/ 00
R M (MAP= 84)
T=14:50 (HR= 54)
128/ 73
R M (MAP= 81)
T=14:57 (HR= 55)
136/ 64
R M (MAP= 79)
(HR= 55)

40 70 100 130

T=15:04 119/ 87
R M (MAP= 96)
(HR= 59)
T=15:11 122/ 67
R M (MAP= 87)
(HR= 53)
T=15:17 100/ 00
R M (MAP= 109)
(HR= 54)
T=15:19 120/ 64
R M (MAP= 73)
(HR= 53)
T=15:26 122/ 61
R M (MAP= 84)
(HR= 54)

kin
Warm
Dry
Cool
Cyanotic
Diaphoretic
Flushed
Pale

Pulses
Absent
Weak
Normal
Bounding

G Level of Consciousness

- Alert.
- Drowsy, but alert with verbal stimulation.
- Lethargic, can be aroused with verbal/tactile stimulation, but shifts to previous state readily.
- Unresponsive to vigorous tactile stimulation but responds to pain.
- Unresponsive to verbal, tactile, superficial or deep, painful stimulation.

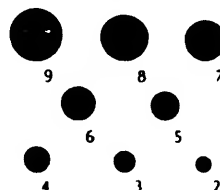
H Orientation

- Oriented to person, place, time.
- Inconsistent response.
- Disoriented to person, place &/or time.
- Grossly disoriented.
- Unable to communicate.

I Pupil Reaction

- Brisk constriction.
- Slow constriction.
- Fixed.
- Hippus.

I Pupil Gauge (mm)



J Movement and Strength

- Strong moves to command.
- Weak to command.
- Moves to stimulus only - touch, pain.
- Moves at random but not to command.
- No movement

K Eye Opening

- Spontaneous
- To voice
- To pain
- None

L Verbal Response

- Oriented
- Confused.
- Inappropriate words.
- Incomprehensive sounds.
- None

M Motor Response

- To command.
- Localizes to pain.
- Withdraws to pain.
- Flexion (pain).
- Extension (pain).
- None

N Abdomen

- Distended
- Flat
- Soft
- Firm - Firm
- Tenderness

O Bowel Sounds

- Present
- Absent
- Hyperactive
- Hypoactive

P DPL Return

- Clear
- Pink
- Red

Q Urine

- Clear
- Cloudy
- Amber
- Yellow
- Red
- Dilute
- Sediment

R Pelvic

- Pain
- Crepitus
- Deformity
- No response

Admitted 6:30p
old female
involved in
MVA - apparently
side swiped
guard rail
went down
embankment
striking tree
Air bag did
deploy - pt
unresponsive
Being bagged
Exhibits massive
facial trauma
to capes

PAIN ASSESSMENT

Time	Level	Location	Quality	Intervention	Results
1255		generalized	pain	3 mg m.s	
1305		"	"	5 mg m.s	
1340		"	"	5 mg m.s	
		mostly jaw			
		restlessness			

No Pain Severe
 LEVEL: 0 - 10
 QUALITY: B Burning
 A Aching
 S Stabbing
 SH Sharp
 T Throbbing
 C Crushing
 T₁ Tightness
 P Pressure
 RESULTS: CR Complete relief
 DI Decreased intensity
 NR/No relief

NURSING INTERVENTION

cont'd of hld. from
 lg laceration to R cheek
 of L) naves. ? CSF
 from R legs
 R legs extremely
 swollen - pupils
 deviated to R) (see
 graphic). Also
 exhibits contusion
 across chest -
 1/2 forearm of right
 swelling + lg area
 of ecchymosis ?
 deformity of wrist
 Trauma protocol
 initiated -
 C. Collar removed by
 Dr [redacted] @ 1318.
 N.G. inserted by
 Dr [redacted] @ 1332.
 Pt to CT jaw
 head & abdomen
 Ureth. V.S remain
 stable - pt remain
 attended. [redacted]

Start		Nurse Init.	Amount Started	✓	IV Solution, Hyperalimentation, Albumin, Blood, Blood Products	IV Additives IV Piggybacks IV Pushes	✓	h	Rate	Method and Gauge	Site	Discontinue			Total Amount Infused
Date	Time											Date	Time	Nurse Init.	
6/6	1243	[redacted]	1000cc		L.R.				150/16	18	L Ant	6/6	1305	[redacted]	350cc
6/6	1243	[redacted]	1000cc		L.R.				150/16	18	R Ant	6/6	1305	[redacted]	1000cc
6/6	1305	[redacted]	1000cc		L.R. (warmed)				"	"	L Ant	6/6	1410	[redacted]	1000cc
6/6	1357	[redacted]	1000cc		L.R. (warmed)				"	"	R Ant	6/6		[redacted]	
6/6	1340	[redacted]	250cc		Bld warm packed cells			open vial	"	"	R Ant	6/6	1440	[redacted]	250cc
6/6	1340	[redacted]	250cc		Bld warm packed cells			open vial	"	"	L Ant	6/6	1505	[redacted]	250cc
6/6	1310	[redacted]	50cc		Amoxil 1000			DVPB	"	"	R Ant	6/6	1945	[redacted]	50cc

Medications	Site	Route	Time	Signature
D.T. 0.5cc		IM	1315	[redacted]

Intake: Oral 5
 IV _____
 Blood 2 units

Output: Emesis 0
 Urine _____
 Levine 100cc dk hld.
 Chest tube R _____
 L _____

[illegible]

Discharge Summary: Time: B/P ^{122/61} P 54 R 18-bagged

1540 Pt transferred to [redacted]
Reported to staff - Right Pak
remains in series headscarf
5 Vent ectopy. Pt begged
insane - > lighter sandstone
[redacted] RU
Report given to: [redacted] RU

Pertinent Nursing Diagnosis

Actual	Potential	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ineffective airway clearance
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Potential for aspiration
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Ineffective breathing pattern
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Impaired gas exchange
<input type="checkbox"/>	<input type="checkbox"/>	Altered cardiac output
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Altered tissue perfusion
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Impaired mobility
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Alteration in comfort
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sensory perceptual alteration
<input type="checkbox"/>	<input type="checkbox"/>	Hypothermia
<input type="checkbox"/>	<input type="checkbox"/>	Hyperthermia
		Other _____

HOSPITAL

/94
03:42PATIENT#:
MR/ACCT#:
DR#:ADMIT: /94
DISMISS: /94NAME:
AGE: 62Y SEX: F ROOM:
DOCTOR:

***** ARTERIAL BLOOD GASES *****

DATE:	NORMAL	UNITS	[1245	1752	/94 2010	2105	0600	94 0925
TIME:								
pH	7.35-7.45	Units	7.35	7.67 * (a)	7.72 * (b)	7.42	7.61 * (c)	7.60 * (d)
pCO2	32-45	mmHg	30 *	16 * (a)	12 * (b)	31 *	19 * (c)	19 * (d)
PO2	70-100	mmHg	89	453 *	176 *	105 *	81	100
O2SAT CALC	95-98	%	97	100 *	100 *	98	98	99 *
CO2	21-27	mm/L	18 *	19 *	16 *	21	20 *	20 *
BICARB	21-28	mm/L	17 *	19 *	16 *	20 *	19 *	19 *
CO2 DELTA		+/-3 mm/L	NEG 7	2	1	NEG 2	1	1
O2/APPLIANCE			UNKNOWN	100%	40%	40%	35%	35%
SOURCE			ART. P	ART. P	ART. LN	ART. LN	ART. LN	ART. LN
BAR. PRES.		mmHg	724	725	725	726	727	731
VENT. MODE				(f)	(g)	SIMV 15	SIMV	SIMV 12
VT		cc		800	800	800	800	800

----- ARTERIAL BLOOD GASES -----

DATE:	NORMAL	UNITS	[0925	1120	/94 0600	0555	0916	94 0557
TIME:								
pH	7.35-7.45	Units	7.55 * (h)	7.47 *	7.48 *	7.46 *	7.49 *	7.42
pCO2	32-45	mmHg	21 *	30 *	33	38	33	39
PO2	70-100	mmHg	112 *	94	64 *	86	73	81
O2SAT CALC	95-98	%	99 *	98	94 *	97	96	96
CO2	21-27	mm/L	20 *	23	25	28 *	27	27
BICARB	21-28	mm/L	19 *	22	24	27	26	26
CO2 DELTA		+/-3 mm/L	NEG 1	0	2	4	3	2
O2/APPLIANCE			35%	35%	35%	35%	35%	35%
SOURCE			ART. LN	ART. LN	ART. LN	ART. LN	ART. LN	ART. LN
BAR. PRES.		mmHg	731	727	733	734	735	731
VENT. MODE			SIMV 12	SIMV 8	SIMV 8	SIMV 8	(i)	SIMV 8
VT		cc	800	800	800	800		800

---FOOTNOTES---

- (a) ALERT CALLED TO [REDACTED] AT 1800 BY [REDACTED]
- (b) ALERT CALLED TO [REDACTED] AT 2015 BY [REDACTED]
- (c) PANIC VALUE TO NURSE [REDACTED]
- (d) ALERT CALLED TO [REDACTED] AT 0935 BY [REDACTED]
- (e) DONE AT NO CHARGE TO PATIENT/[REDACTED]
- (f) VOLUME CONTROL
- (g) VOLUME CONTROL 15
- (h) SPECIMEN RUN ON ALTERNATE INSTRUMENT AT NO CHARGE.
- (i) PRESSURE SUPPORT 15

CONTINUED

ROOM: [REDACTED] PAGE 11
DISCHARGE SUMMARY

PATIENT#:
MR/ACCT#:
DR#:

ADMIT: 03/94
DISMISS: 03/94

NAME: [REDACTED]
AGE: 62Y SEX: F ROOM: [REDACTED]
DOCTOR: [REDACTED]

ARTERIAL BLOOD GASES

DATE: TIME:	NORMAL	UNITS	0558	0558	0603	0602	0555	0940
pH	7.35-7.45	Units	7.46 *	7.49 *	7.49 *	7.47 *	7.49 *	7.47 *
pCO2	32-45	mmHg	41	38	34	32	32	33
PO2	70-100	mmHg	68 *	64 *	106 *	109 *	83	99
O2SAT CALC	95-98	%	94 *	94 *	99 *	99 *	97	98
CO2	21-27	mM/L	31 *	31 *	27	25	25	25
BICARB	21-28	mM/L	30 *	30 *	26	24	25	24
CO2 DELTA		+/-3 mM/L	6	6	3	1	2	2
O2/APPLIANCE			30%	35%	35%	35%	35%	35%
SOURCE			ART. P	ART. P	ART. P	ART. P	ART. P	ART. P
BAR. PRES.		mmHg	726	721	732	735	733	733
VENT. MODE			SIMV 8	SIMV	SIMV	SIMV 10	SIMV10	(j)
VT		CC	800	800	800	800	800	800
PS		cmH2O			10	10	10	10

ARTERIAL BLOOD GASES

DATE: TIME:	NORMAL	UNITS	0620	1608
pH	7.35-7.45	Units	7.47 *	7.50 *
pCO2	32-45	mmHg	34	32
PO2	70-100	mmHg	113 *	70
O2SAT CALC	95-98	%	99 *	95
CO2	21-27	mM/L	26	26
BICARB	21-28	mM/L	25	25
CO2 DELTA		+/-3 mM/L	2	3
O2/APPLIANCE			35%	(k)
SOURCE			ART. P	ART. P
BAR. PRES.		mmHg	733	726
VENT. MODE			(l)	
VT		CC	800	
PEEP		cmH2O	5	
PS		cmH2O	10	

---FOOTNOTES---

- (j) SIMV RATE 8
- (k) 35% T PIECE
- (l) SIMV+PRESSURE SUPPORT

HOSPITAL
- Lincoln

03:42

PATIENT#:
MR/ACCT#:
DR#:

ADMIT: [REDACTED] / [REDACTED] / 94
DISMISS: [REDACTED] / [REDACTED] / 94

NAME: [REDACTED]
AGE: 62Y SEX: F ROOM: [REDACTED]
DOCTOR: [REDACTED]

TEST: ALCOHOL, BLOOD
UNITS: mg/dl
LO-HI: <10
[REDACTED] / 94
1245 <10

***** TOXICOLOGY *****

CONTINUED

ROOM: [REDACTED] PAGE 17
DISCHARGE SUMMARY

PATIENT#:
MR/ACCT#:
DR#:

ADMIT: /94
DISMISS: /94

NAME:
AGE: 62Y SEX: F ROOM:
DOCTOR:

***** PATIENT ABO/Rh AND ANTIBODY SCREEN *****
TEST: ABO/Rh(D) Plasma/Serum Screen for
Type Antibody Screen ABO Antibodies
/94
245 AB NEGATIVE NEGATIVE NEGATIVE
/94
1545 AB NEGATIVE NEGATIVE

***** BLOOD BANK REQUESTS FOR TRANSFUSION *****
TEST: Component Ordered Number Order Expires
/94
45 RED CELLS 4
/94
545 RED CELLS 02

***** TRANSFUSION AND CROSSMATCHING REMARKS *****

TYPE & SCREEN PROTOCOL
NOTE:

UNITS WERE CROSSMATCHED BECAUSE TYPE AND
SCREEN PROTOCOL WAS CONVERTED TO TYPE AND
CROSSMATCH ON PHYSICIAN'S ORDERS.

***** WHOLE BLOOD AND PACKED CELLS ISSUED *****
Component Unit No. ABO/Rh Results Status Comments/Antigens
/94
1327 PC-AD AB NEG COMPAT TRANSFUSED
PC-AD AB NEG COMPAT TRANSFUSED
/94
103 PC-AD AB NEG COMPAT TRANSFUSED
1512 PC-AD AB NEG COMPAT TRANSFUSED

***** WHOLE BLOOD AND PACKED CELLS RELEASED *****
Component Units Crossmatched Units Screened No. Antigens
PC-AD 2 0 0

PATIENT:

ORDERING MD:
REFERRING MD:

MD

DOB:

ID#:

ROOM:

DATE: -94

ORDER #: EXAM: CERVICAL, SURVEY, PORTABLE

CLINICAL DATA: Trauma -94.

CERVICAL SURVEY, (PORTABLE) -94 AT 1249 HOURS: Multiple views of the cervical spine are not optimal because of the patient's inability to be still, but show no suggestion of gross fracture or subluxation. Some degenerative change is appreciated. There is fair maintenance of disc space and vertebral body height.

CHEST (): Portable -94 at 1303 hours: A film of the chest shows ET tube in place, probably down the right mainstem bronchus. There is partial collapse of the left lung and shift to mediastinal structures to that side. Osseous structures are demineralized and show degenerative change of the thoracic spine.

CHEST (): Portable -94 at 1315 hours. A film of the chest shows a better position of the ET tube with better aeration of the left lung. No pneumo or hemothorax seen. Heart size appears to be upper limits of normal.

LEFT FOREARM (): Portable -94 at 1303 hours. Osseous structures appear demineralized and the probability of a fracture of the navicular is real. When possible more routine detailed views would be appropriate.

PELVIS, SURVEY (): Portable -94 at 1305 hours. A film of the pelvis shows Shenton's lines to be symmetrical. No suggestion of fracture or dislocation deformity of either hip apparent. SI joints are unremarkable.

IMPRESSION: Chest showing ET tube in the right mainstem bronchus producing poor aeration of the left lung. Tube is then adjusted and improved aeration of the left lung is apparent. Heart size upper limits of normal. Cervical spine survey showing demineralization and degenerative change. No definite fracture or subluxation. Probable navicular fracture of the right wrist. Pelvis shows demineralization and some degenerative change.

TIME: 1500
oc -94

M.D.

PATIENT:

DOB:

ORDERING MD:

MD

ID#:

REFERRING MD:

ROOM: ER

DATE: 11-14-94

ORDER #: [REDACTED] EXAM: CT HEAD WITHOUT CONTRAST

cc: Dr. [REDACTED]

CLINICAL DATA: Motor vehicle accident [REDACTED] 1994.

CT HEAD WITHOUT CONTRAST: CT of the brain was done without contrast. There is a large area of soft tissue swelling and hematoma over the right frontal calvarium. Fractures of both nasal bones are present. The zygomatic arches appear intact. There may be medial wall maxillary fractures on the left as there is a little fluid in the maxillary sinus on the left side. No other calvarial fractures are seen. There appears to be diffuse hemorrhagic contusion throughout the right temporal lobe and much of the right parietal lobe. There is effacement of the sulci throughout this region. There is not significant midline shift at this time or evidence of brain herniation. Small amounts of fresh blood are present in both lateral ventricles. The ventricles themselves are normal in size and position. There is no evidence of subdural or epidural hematoma at this time.

IMPRESSION: There is a very large hemorrhagic contusion throughout the right temporal and parietal lobes. Nasal bone fractures are present with possible medial wall fractures in the left maxillary sinus. No evidence of brain herniation at this time.

TIME: 1400

bb [REDACTED] 11-14-94

M.D.

PATIENT: DOB:
ORDERING MD: MD ID#:
REFERRING MD: ROOM:
DATE: 1-94
ORDER #: EXAM: C.T.ABDOMEN & PELVIS WITH

cc: Drs. [REDACTED]
[REDACTED]

CLINICAL DATA: Trauma. MVA 1-94.

CT OF THE ABDOMEN AND PELVIS WITH CONTRAST: Imaging is accomplished from the diaphragm through the pelvis after administration of contrast material showing what appears to be a liver and spleen which are intact. The density of the liver is comparable to that of the spleen. The kidneys function showing no hydronephrosis or extravasation of contrast. Arteriosclerotic change of the abdominal aorta is apparent. Psoas muscles are symmetrical. No retroperitoneal bleed is appreciated. The uterus is pretty full and has some low density material within its center. Possibility of fibroid formation to be considered. No pelvic hematoma is appreciated. The bladder appears intact.

IMPRESSION: CT of the abdomen and pelvis showing no retroperitoneal bleed with what appears to be intact liver and spleen. The uterus is large. Possibility of fibroid formation but an adenocarcinoma of the endometrium could present in a similar manner.

TIME: 0900
mf 01-94

M.D.

PATIENT: DOB:
ORDERING MD: MD ID#:
REFERRING MD: ROOM:
DATE: -94
ORDER #: EXAM: CHEST, SINGLE, PORTABLE

CLINICAL DATA: Trauma with MVA -94.

CHEST (PORTABLE): -94. 0535 hours. A portable view of the chest shows heart to be within normal limits. There is probably some consolidation posterior to the heart. NG tube in place. ET tube in place at the carina. Remainder of the left lung and right lung appear clear.

IMPRESSION: Chest showing what appears to be consolidation left lower lobe since prior examination -94. Tubes in satisfactory positions.

TIME: 0800
mf -94

M.D.

PATIENT: DOB:
ORDERING MD: MD ID#:
REFERRING MD: ROOM:
DATE: -94
ORDER #: EXAM: CHEST, SINGLE, PORTABLE

CLINICAL DATA: Checking central line placement.

CHEST (PORTABLE) -94 AT 0805 HOURS: A film of the chest taken with the mobile unit shows NG tube in place. A central line has been inserted from the right, the tip is just above the right atrium. Lungs appear about as before with continued density posterior to the heart on the left suggesting consolidation or atelectasis.

IMPRESSION: Successful placement of central line from the right. No pneumo or hemothorax seen. Chest otherwise appears as before on earlier filming this date.

TIME: 0900
oc -94

M.D.

PATIENT:

DOB:

ID#:

ORDERING MD:

MD

ROOM:

REFERRING MD:

DATE: [REDACTED] 94

ORDER #: [REDACTED] EXAM: CHEST, SINGLE, PORTABLE

[REDACTED]

CLINICAL DATA: Progress chest. Multiple trauma from MVA on [REDACTED] 94.

PORTABLE CHEST: A portable chest [REDACTED] 94 at 0550 hours shows a normal heart and mediastinum. An endotracheal tube, nasogastric tube and subclavian catheter are in satisfactory position. The heart appears normal. There is developing infiltrative change in the right upper lobe.

IMPRESSION: Developing pneumonitis right upper lobe. I cannot see any consolidation in the left base on today's film. The tubes remain in satisfactory position though the proximal side hole in the nasogastric tube is at the cardioesophageal junction.

TIME: 0700

mf [REDACTED] 94

M.D.

PATIENT:

DOB:

ID#:

ORDERING MD:

MD

ROOM:

REFERRING MD:

DATE: [REDACTED] 94

ORDER #: [REDACTED] EXAM: CHEST, SINGLE, PORTABLE

[REDACTED]

CLINICAL DATA: MVA [REDACTED] 94.

PORTABLE CHEST: A portable chest [REDACTED] 94 at 0545 hours shows mild increase in density behind the left heart border and a little increase in the density previously noted in the right apex. The heart size remains normal. The tubes remain in good position.

IMPRESSION: Recurring atelectic change left lower lobe and slight increase in contusion and/or pneumonitis right upper lobe.

TIME: 0800

mf [REDACTED] 94

M.D.

PATIENT: DOB:
ORDERING MD: MD ID#:
REFERRING MD: ROOM:
DATE: -94
ORDER #: EXAM: CHEST, SINGLE, PORTABLE

CLINICAL DATA: MVA trauma on -94, follow up.

CHEST, SINGLE (PORTABLE): -94. 0530 hours.
A film of the chest taken with the mobile unit shows NG tube in place.
ET tube is approximately 2 inches above the carina. Subclavian
catheter is in place having been introduced from the right. A patchy
infiltrate noted in the right upper lobe with some prominence of
markings adjacent to the left hilum.

IMPRESSION: Patchy infiltrate, right upper lobe appears a little more
extensive than on the prior examination of -94. Tubes in
satisfactory position. Some accentuation of perihilar markings on the
left.

TIME: 0700
cb -94

M.D.

PATIENT: DOB:
ORDERING MD: MD ID#:
REFERRING MD: ROOM:
DATE: -94
ORDER #: EXAM: CHEST, SINGLE, PORTABLE

CLINICAL DATA: Follow up.

CHEST (PORTABLE) SINGLE: -94. 0530 hours.

A film of the chest taken with the mobile unit continues to show
bilateral parenchymal abnormalities in the upper lobes similar to that
seen on previous examination of -94. Tubes appear to be in
satisfactory positions.

IMPRESSION: Chest showing little change since the prior examination
of -94.

TIME: 1100
cb -94

M.D.

PATIENT: DOB:
ORDERING MD: MD ID#:
REFERRING MD: ROOM:
DATE: 1/12/94
ORDER #: [REDACTED] EXAM: CHEST, SINGLE, PORTABLE

[REDACTED]
CLINICAL DATA: Progress chest.

CHEST, SINGLE, PORTABLE: [REDACTED] 94. 0610 hours.
A portable chest [REDACTED] 94 at 0610 hours shows a normal heart and mediastinum. There is increased density behind the heart and patchy areas of infiltrative change are seen in the right upper lobe and left upper lobe. The latter have increased slightly from the previous films. The endotracheal tube, nasogastric tube, and right subclavian catheter remain in good position.

IMPRESSION: Bilateral upper lobe pneumonia. Question small consolidation or fluid collection behind the left heart border.

TIME: 0800

cb [REDACTED] 94

M.D.

PATIENT: DOB:
ORDERING MD: MD ID#:
REFERRING MD: ROOM:
DATE: 1/12/94
ORDER #: [REDACTED] EXAM: ABDOMEN, SURVEY, PORTABLE

[REDACTED]
CLINICAL DATA: Post trauma on [REDACTED] 94. Question bowel obstruction.

ABDOMEN SURVEY, PORTABLE ([REDACTED]): A supine view of the abdomen was done with the portable unit. The bowel gas pattern shows a mild ileus but no focal obstruction is evident. A nasogastric tube is in place. No free air is seen. The bony structures are unremarkable.

IMPRESSION: Mild ileus.

CHEST, SINGLE, PORTABLE ([REDACTED]): A portable view of the chest [REDACTED] 94 at 0520 hours shows a normal heart and mediastinum. There are bilateral infiltrative changes present in the lungs. These have not changed from yesterday's film. The tubes remain in good position.

IMPRESSION: Bilateral pulmonary infiltrates, unchanged.

TIME: 0800

cb [REDACTED] 94

M.D.

PATIENT:
ORDERING MD:
REFERRING MD:

MD

DOB:
ID#:
ROOM:
DATE: [REDACTED]-94

ORDER #: [REDACTED] EXAM: CHEST, SINGLE, PORTABLE

[REDACTED]
CLINICAL DATA: Progress chest.

PORTABLE CHEST [REDACTED]-94 AT 1450 HOURS: Shows a normal heart and mediastinum. Diffused pulmonary infiltrative changes are again noted. This film was taken post bronchoscopy and there is no evidence of pneumothorax. The tubes remain in good position.

IMPRESSION: Diffused pulmonary infiltrates, unchanged. Tubes are in good position. Negative for pneumothorax post bronchoscopy.

TIME: 1600
OC [REDACTED]-94

[REDACTED] M.D.

PATIENT:
ORDERING MD:
REFERRING MD:

MD

DOB:
ID#:
ROOM:
DATE: [REDACTED]-94

ORDER #: [REDACTED] EXAM: CHEST, SINGLE, PORTABLE

[REDACTED]
CLINICAL DATA: Follow up lung status. Patient is pre-op.

CHEST (PORTABLE) [REDACTED]-94 at 1045 hours: A film of the chest taken with the mobile unit shows less pulmonary vascular congestion when comparison is made to previous examination of [REDACTED]-94. ET tube tip is about a centimeter above the carina. NG tube is within the stomach and a subclavian catheter is in place on the right.

IMPRESSION: Improved aeration of the upper lobes of the lungs since prior examination [REDACTED]-94. Tubes in satisfactory position.

Report called to Dr. [REDACTED] by Dr. [REDACTED] at 1100 hours.

TIME: 1100
nij [REDACTED]-94
nij [REDACTED]-94

[REDACTED] M.D.

PATIENT:

DOB:

ID#:

ORDERING MD:

MD

ROOM:

REFERRING MD:

DATE: [REDACTED]-94

ORDER #: [REDACTED] EXAM: CHEST, SINGLE, PORTABLE

CLINICAL DATA: Follow up tracheotomy insertion.

CHEST (PORTABLE) [REDACTED]-94 at 1420 hours: A film of the chest taken with the mobile unit shows a tracheostomy device in place which appears to be in good position and alignment. Prominent markings in the upper lobes again are noted as on prior examination of [REDACTED]-94.

IMPRESSION: Chest showing successful placement of tracheostomy device.

TIME: 1600

nij [REDACTED]-94

M.D.

PATIENT:

DOB:

ID#:

ORDERING MD:

MD

ROOM:

REFERRING MD:

DATE: [REDACTED]-94

ORDER #: [REDACTED] EXAM: CHEST, SINGLE, PORTABLE

CLINICAL DATA: Progress chest.

CHEST (PORTABLE) [REDACTED]-94 AT 0540 hours shows a normal heart and mediastinum. The tracheostomy tube is in good position. There is continued improvement in the infiltrative changes in the lungs. Mild infiltration persists in both upper and mid lung regions.

IMPRESSION: Continued improvement in the chest.

TIME: 0700

nij [REDACTED]-94

M.D.

PATIENT: DOB:
ORDERING MD: MD ID#:
REFERRING MD: ROOM:
DATE: -94
ORDER #: EXAM: CHEST, SINGLE, PORTABLE

CLINICAL DATA: Progress chest.

PORTABLE CHEST -94 AT 0800 HOURS: Shows a normal heart and mediastinum. The tracheostomy tube and right subclavian catheter are in good position. The mild residual infiltrative changes still present in the upper lobes appear to be slowly improving.

IMPRESSION: Continued slow improvement in the chest.

TIME: 1000
cc -94

M.D.

PATIENT: DOB:
ORDERING MD: MD ID#:
REFERRING MD: ROOM:
DATE: -94
ORDER #: EXAM: CHEST, SINGLE, PORTABLE

CLINICAL DATA: Follow-up.

CHEST(PORTABLE): -94. 0530 hours. A film of the chest taken with the mobile unit shows tracheostomy device in place as well as subclavian catheter, the tip of which is within the right atrium. Some prominent markings noted bilaterally particularly on the right. Basically, little change is apparent when comparison is made to earlier examination of -94.

IMPRESSION: Chest showing little change since prior examination of -94.

TIME: 0700
mf -94

M.D.

PATIENT: DOB:
ORDERING MD: MD ID#:
REFERRING MD: ROOM:
DATE: [REDACTED]-94
ORDER #: [REDACTED] EXAM: CHEST, SINGLE, PORTABLE

CLINICAL DATA: Follow up lung status.

CHEST (PORTABLE): Semi-erect AP view 0555 hours [REDACTED]-94 compared to one day earlier. No change in the right subclavian central line or tracheostomy tube. Residual infiltrate in both bases, particularly on the right, that show interval improvement. There is also minimal linear atelectasis or fibrosis in the right apex medially, improved. Normal heart size and normal pulmonary vascularity. NO pneumothorax or effusion. Bony structures and osseous structures are stable.

IMPRESSION: Improved appearance to the infiltrates in the lower lung zones as well as in the medial right upper lung. NO new infiltrates. No other change.

TIME: 0800

[REDACTED]-94

M.D.

ORDERING MD: MD DOB:
REFERRING MD: ROOM:
DATE: [REDACTED]-94
ORDER #: [REDACTED] EXAM: CHEST, SINGLE, PORTABLE

CLINICAL DATA: Follow-up lung status.

CHEST (PORTABLE): [REDACTED]-94. 0615 hours. A film of the chest taken with the mobile unit shows a tracheostomy device in place. The right subclavian catheter remains in place, the tip is just barely within the right atrium. Lungs appear relatively clear except for some prominent markings in the upper lobes particularly on the right and the right lower lobe. Little change since prior examination of [REDACTED]-94.

IMPRESSION: Chest showing little change since prior examination [REDACTED]-94. Tubes in satisfactory position.

TIME: 0700

[REDACTED]-94

M.D.

SURGICAL RECORD

Hospital
Lincoln, Nebraska

Patient's Name	Admission #	Room #	Age	Date of Operation
[REDACTED]	[REDACTED]			[REDACTED] 94
Surgeon	Assistant	Attending Physician	CRNA/MD	
[REDACTED]				
Open Incision	Close Incision			

PREOPERATIVE DIAGNOSIS: Full thickness right lip laceration and cheek laceration with nasal fracture

POSTOPERATIVE DIAGNOSIS: Same

OPERATIVE PROCEDURE: Repair 6.0 cm complex right cheek and full thickness lip lacerations with closed reduction and split fixation of nasal fracture

FINDINGS AND OPERATIVE PROCEDURE:

ANES: Local






The patient was lying supine in the ER, having been involved in a motor vehicle accident with multiple injuries including a 6.0 cm laceration of the right cheek extending down to the maxilla and through and through the right upper lip. There is a multiply comminuted fracture of the nose as well with left longitudinal displacement. Local anesthesia was obtained using 1% Xylocaine containing 1:100,000 Epinephrine which was infiltrated into the region of the wounds and then cleansed with Betadine solution and irrigated with normal saline. Nonviable appearing fragments of tissue were excised as were jagged irregular margins of the lip and cheek laceration. Hemostasis was obtained using suture ligation of the labial arteries which were vigorously bleeding into the wound. The wound was then reconstructed with initial closure of the right upper lip using Vicryl reapproximation of the muscle fibers and reconstructing the orbicularis oris muscle followed by lip closure with Vicryl approximation of the deep tissue and mucosa and nylon approximation of the skin portions of the lip. Careful attention was given for realignment of the vermillion margin. Additional wound closure was required in the 6 cm cheek laceration which was closed in multiple layers with interrupted Vicryl stitches and the skin edge approximated with running 6-0 subcuticular stitch. Neosporin was applied to the wound. A closed nasal reduction was then performed. Mastisol was placed on the dorsum of the nose followed by application of steri-strips and a plaster nasal splint. While holding this in position a closed nasal reduction was performed using the backside of a scalpel handle. After careful realignment of all nasal bones had been performed, a splint was held in place until dry. A drip sponge dressing was applied. The patient tolerated these portions of the procedure and was prepared to transfer to ICU for treatment of other injuries.

Signed _____, M.D.

M.D.

SURGICAL RECORD

 Hospital
Nebraska

Patient's Name	Admission #	Room #	Age	Date of Operation
		ICU	62	 /94
Surgeon	Assistant	Attending Physician	CRNA/MD	
				

PREOPERATIVE DIAGNOSIS: This lady's history of increasing amounts of cough and shortness of breath and respiratory failure.

POSTOPERATIVE DIAGNOSIS:

OPERATIVE PROCEDURE: Flexible fiberoptic bronchoscopy.

FINDINGS AND OPERATIVE PROCEDURE:

Flexible fiberoptic bronchoscopy was carried out in patient's ICU room where we obtained multiple secretions and loculated plugs that were aspirated without any difficulty. Careful inspection was made of the right upper, middle and lower lobe, left alveoli and left lower lobe carried out, each of the subsegmental orifices and apparently with no evidence of any intrabronchial masses.

Signed _____, M.D.
M.D.

**Hospital
Nebraska**

Signed _____, M.D.

SURGICAL RECORD

Hospital
Nebraska

Patient's Name	ADM #	Room #	Age	Date of Operation
			62	-94
	Assistant	Attending Physician	CRNA/MD	

Open Incision Close Incision

PREOPERATIVE DIAGNOSIS: Automobile accident related head injury

POSTOPERATIVE DIAGNOSIS: Same

OPERATIVE PROCEDURE: PEG tube placement

FINDINGS AND OPERATIVE PROCEDURE:

The PEG tube was placed following a tracheostomy performed by Dr. . After completion of the tracheostomy, the abdomen was bared and palpation revealed no apparent masses in the epigastrium or right upper quadrant. The GIF-XQ10 gastroduodenoscope was introduced into the tubular esophagus, asking the anesthetist to assist, and initially directing it to the cricopharyngeus. We were able to advance it with relative ease down into the stomach which was carried forth on into the second portion of the duodenum. She did have evidence of moderately severe antral gastritis. No specific ulceration was seen, however. Then withdrawing the midportion of the stomach, turning the lights down, we were able to see the light through the abdominal wall. With palpation, we were able to identify location of the apposition of the stomach to the anterior abdominal wall. At this point the anterior abdomen was prepped. A needle was introduced into the stomach and visualized in the stomach. A guidewire was passed through the needle, grasped with a snare, and pulled out through the oropharynx. On completion of this, a #20 Bard PEG tube was introduced and advanced over the guidewire, grasping it as it emerged from the abdomen and pulling the PEG tube into place. After being pulled into place, a 4x4 was placed and it was affixed in position. It was felt that we had attained good position. The patient did tolerate the procedure well. It would be planned to attach it to gravity drainage today and attempt tube feeding in the morning.

Signed _____, M.D.
M.D.

TRANSPORTATION RESEARCH CENTER

 1599

ON-SITE AIR BAG INVESTIGATION



SELECTED PHOTOGRAPHS

CASE NO. - 94-18

FLEET - PRIVATE VEHICLE

LOCATION -  NEBRASKA

ACCIDENT DATE -  1994

A total of sixty color copies of photographs are presented and referenced as Photograph #01 through Photograph #60. Photographs numbered #03, #05, #07, #10, #11, #13, #15, #16, #22, #23, #24, #43, #44, #46, #48, #50, and #52 were taken and made available by the , Nebraska, . The remainder of these photographs were taken by the Transportation Research Center.

, 1995

Contract Number: DTNH22-94-D-17058

Prepared for:

U.S. Department of Transportation
National Highway Traffic Safety Administration
National Center for Statistics and Analysis
Washington, D.C. 20590



01 -- 1992 Ford Taurus's northward approach on gravel road toward bridge--approximately 100 meters south of guardrail impact



02 -- 1992 Ford Taurus's northward approach toward bridge at ~ beginning of clockwise rotation; NOTE: guardrail impact in cell G6



03 -- On scene view, looking NE, of 1992 Ford Taurus's guardrail impact--see cell E4; NOTE: four-tire clockwise rotation scuffs



04 -- North-northeast view of 1992 Ford Taurus's guardrail impact--see red flag in cells E5--F5; NOTE: guardrail repaired no evidence



05 -- Close-up on scene view, looking NE, of 1992 Ford Taurus's impact with guardrail (cells D4--F5); see RF tire mark near rail



06 -- NE view of replacement guardrail impacted by 1992 Ford Taurus;
NOTE: in Photo #05 above guardrail was ripped from holding pin



07 -- On scene view, looking SE, of 1992 Ford Taurus's guardrail impact--see cells D4--F4; NOTE: hole from holding pin in cell D4



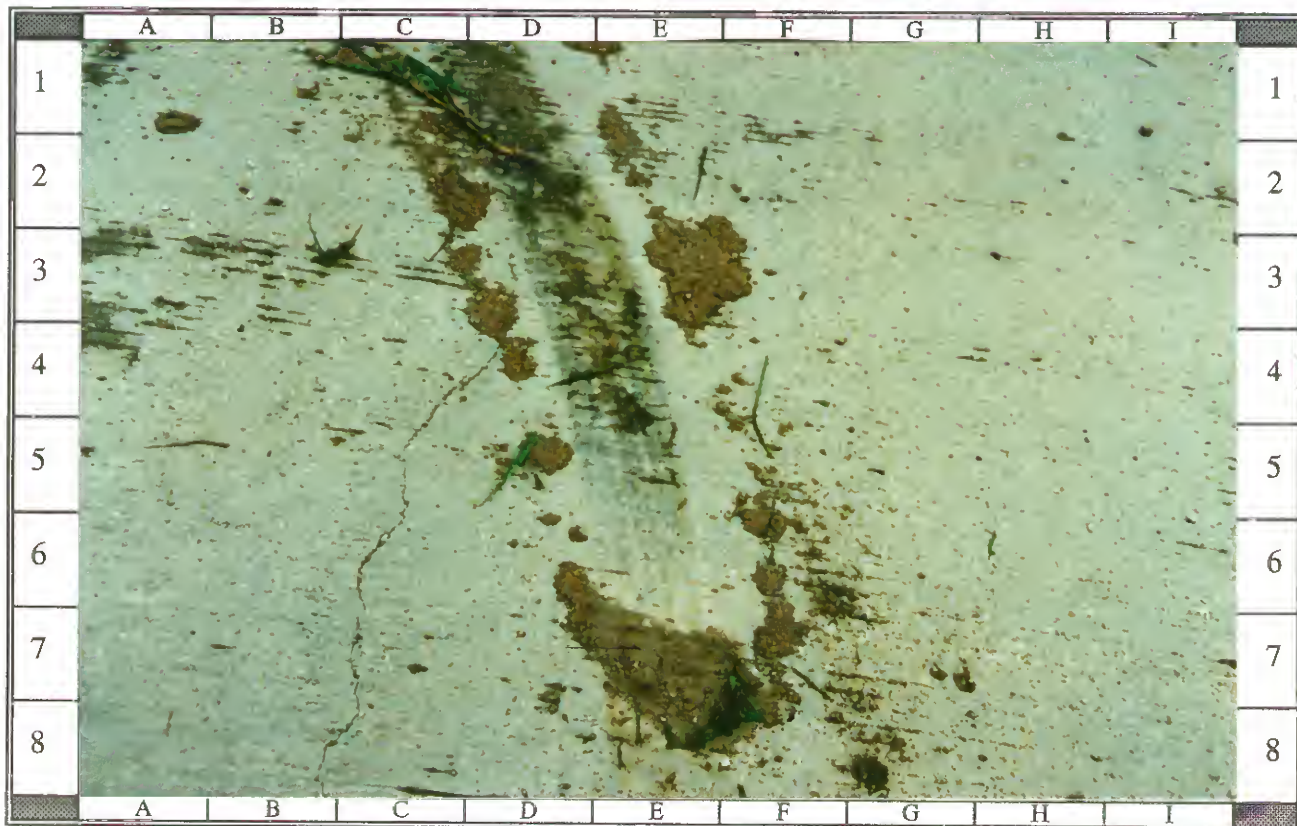
08 -- Northwest view of 1992 Ford Taurus's post-guardrail impact direction of travel onto bridge from behind replacement guardrail



09 -- South-southeast view of 1992 Ford Taurus's ~ initial rest area
prior to Taurus's south-southeast movement toward east roadside



10 -- On scene view, looking south, of '92 Ford Taurus's post-guard-rail impact CW travel to initial rest area; NOTE: tire marks



11 -- Close-up on scene view, looking south, of '92 Ford Taurus's LF tire near initial rest; NOTE: mark indicates vehicle in-gear



12 -- South-southeast view of 1992 Ford Taurus's path of travel just prior to departing E side of road & going down steep embankment



13 -- On scene view, looking E-SE from east roadside, of 1992 Ford Taurus's final rest position at bottom of embankment



14 -- East-southeast view from E roadside of '92 Ford Taurus's ~ final rest position (red flag) at bottom of embankment--see cell E4



15 -- On scene view, looking E-SE from mid-point of E embankment, of 1992 Ford Taurus's final rest position at bottom of embankment



16 -- Close-up on scene view, looking E-SE, of '92 Ford Taurus's FRP at bottom of embankment; NOTE: tree & limbs (see cells F1--H5)



17 -- E-SE view from midpoint of E embankment of 1992 Ford Taurus's ~ FRP at bottom; compare tree & limbs (cells G1--H4) in photo #16



18 -- Close-up of 1992 Ford Taurus's ~ FRP at embankment bottom heading E-SE; cell G8 shows embankment impact that deployed air bag



19 -- Closer-up of 1992 Ford Taurus's ~ final rest position at bottom of embankment heading east-southeast; NOTE: no contact to tree



20 -- Closest-up of 1992 Ford Taurus's ~ final rest position at bottom of embankment heading east-southeast; NOTE: no contact to tree



21 -- W-NW view from beyond ~FRP of '92 Ford Taurus's travel path; see tree & limbs (cells A7--D8) & bag deployment area (cells F5--G6)



22 -- On scene close-up of 1992 Ford Taurus's damaged front bumper viewed from front--offset R; NOTE: soft sandy nature of roadway



23 -- On scene closer-up of 1992 Ford Taurus's damaged front R bumper viewed from FR; NOTE: damaged air dam & grass above bumper



24 -- On scene closer-up of 1992 Ford Taurus's damaged front L bumper viewed from FL; NOTE: damaged air dam & grass above bumper



25 -- 1992 Ford Taurus's frontal damage with contour guage present at bumper level viewed from F; NOTE: damage to air dam on R side



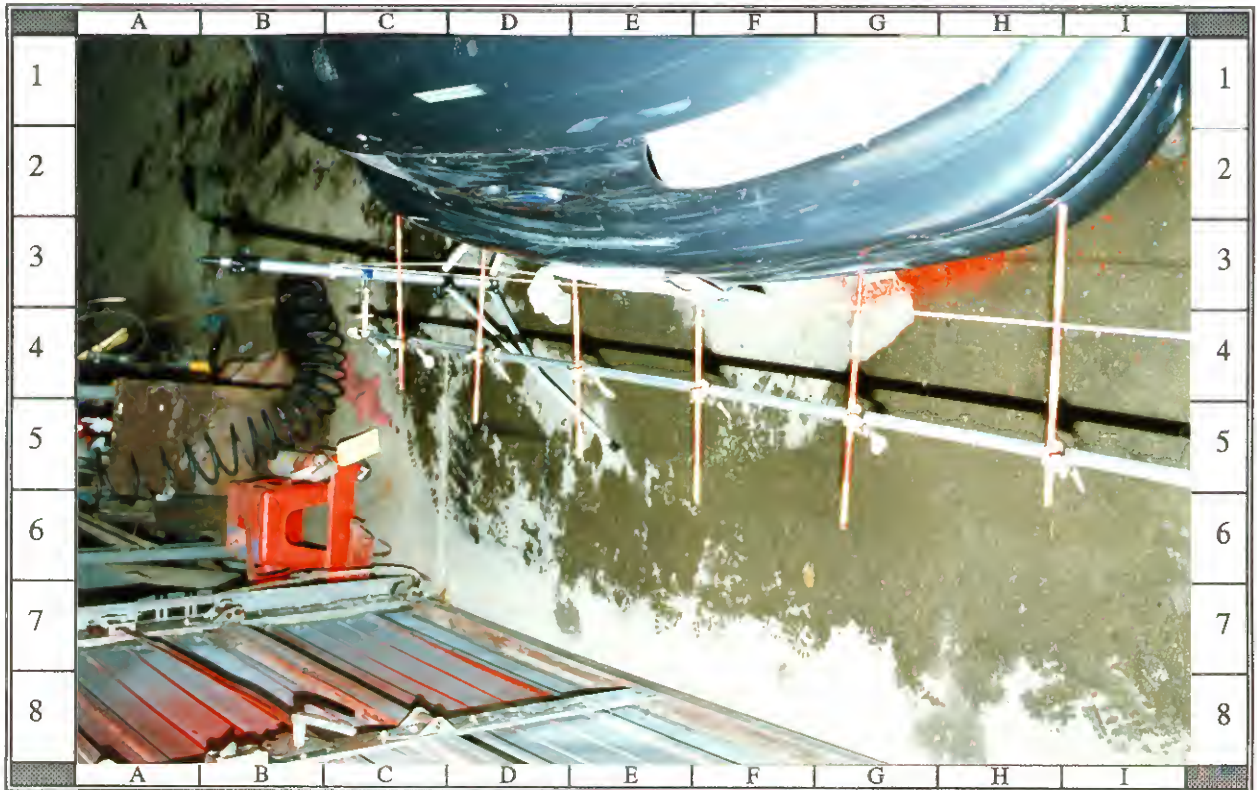
26 -- 1992 Ford Taurus's frontal damage with contour guage present at bumper level viewed from FL; NOTE: bumper scratches & R air dam



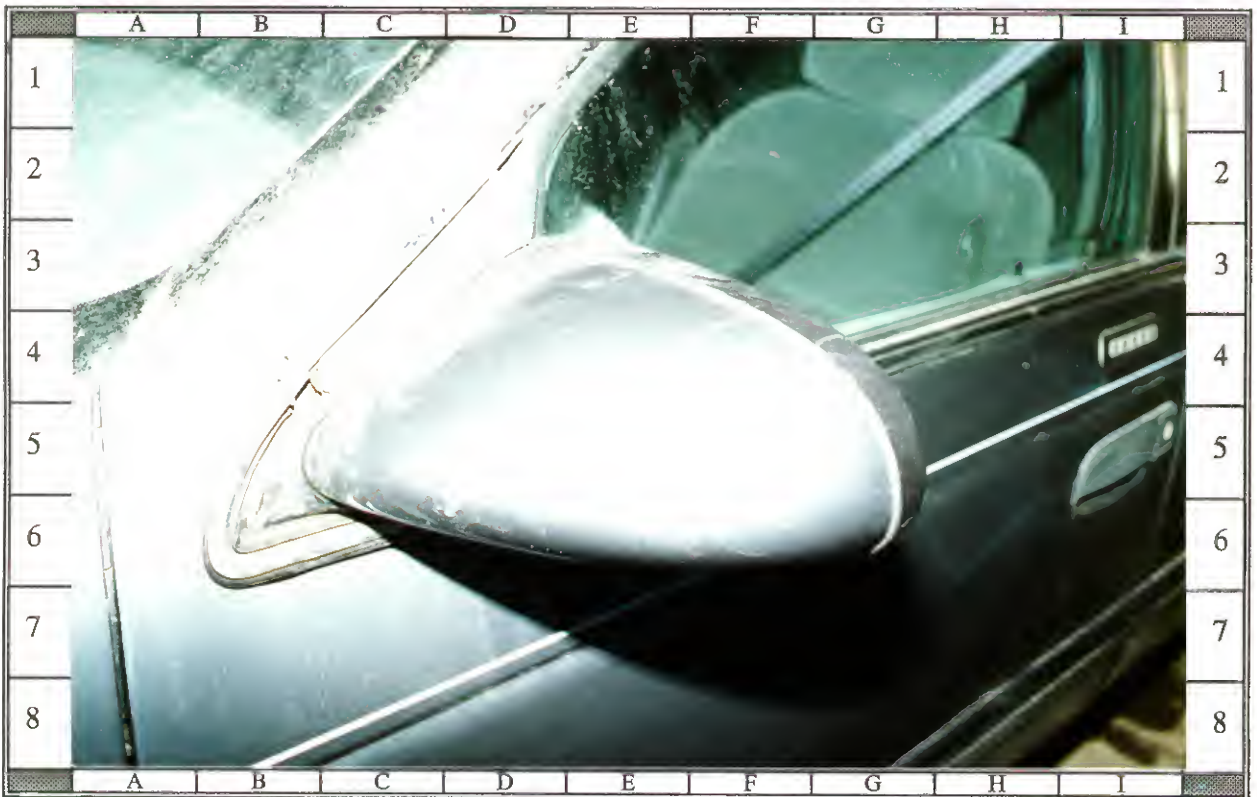
27 -- Close-up of scratches on 1992 Ford Taurus's FL bumper from CW rotational impact with guardrail; NOTE: no LF headlight damage



28 -- Overhead view of 1992 Ford Taurus's LF bumper corner; NOTE: misaligned plastic from bumper stroke--see cells D5--E5



29 -- Front reference line view of '92 Ford Taurus's F bumper damage viewed from L; see scratches from bumper stroke (cells D3--E3)



30 -- Close-up of scratches on 1992 Ford Taurus's L outside rearview mirror from impact with limbs of small tree



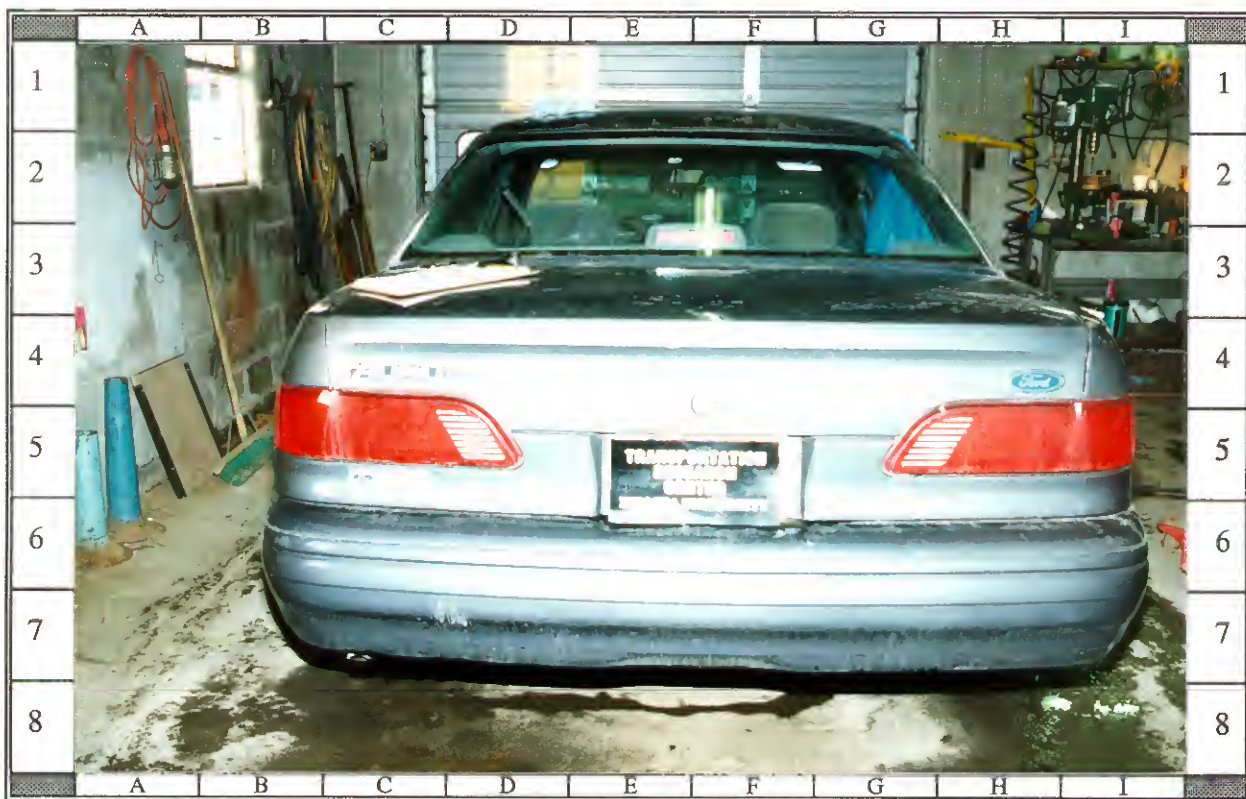
31 -- Close-up of crack on '92 Ford Taurus's L outside rearview mirror from impact with tree limb--crack most likely during extrication



32 -- Close-up of damage to '92 Ford Taurus's L lower driver door area most likely induced from the rearward movement of the LF fender



33 -- Close-up of scratches on 1992 Ford Taurus's L quarterpanel from impact with tree limbs on slope (e.g., see cells D5 & D3--E3)"



34 -- 1992 Ford Taurus's undamaged rear viewed from rear



35 -- 1992 Ford Taurus's undamaged right side viewed from right front;
right rear window was shattered during extrication of driver



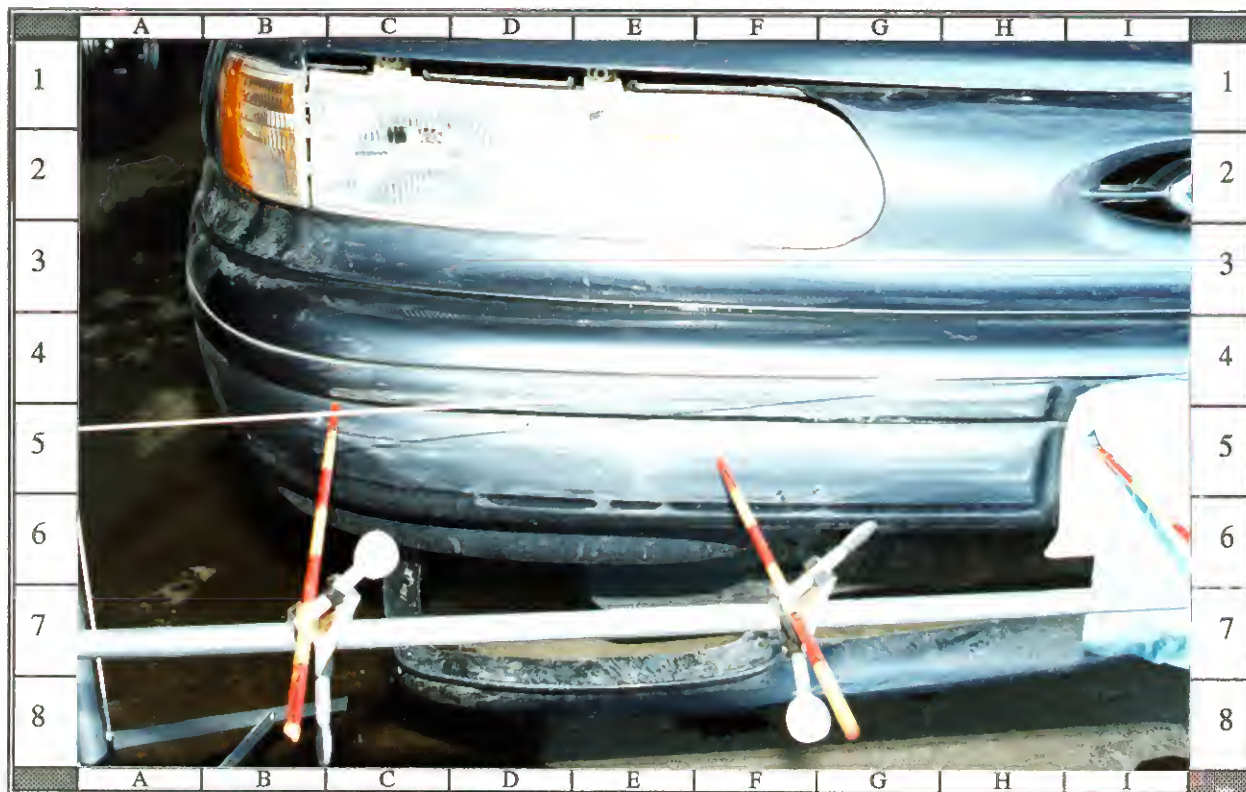
36 -- Close-up of mudflap behind 1992 Ford Taurus's right front wheel;
NOTE: damage most likely occurred during travel down embankment



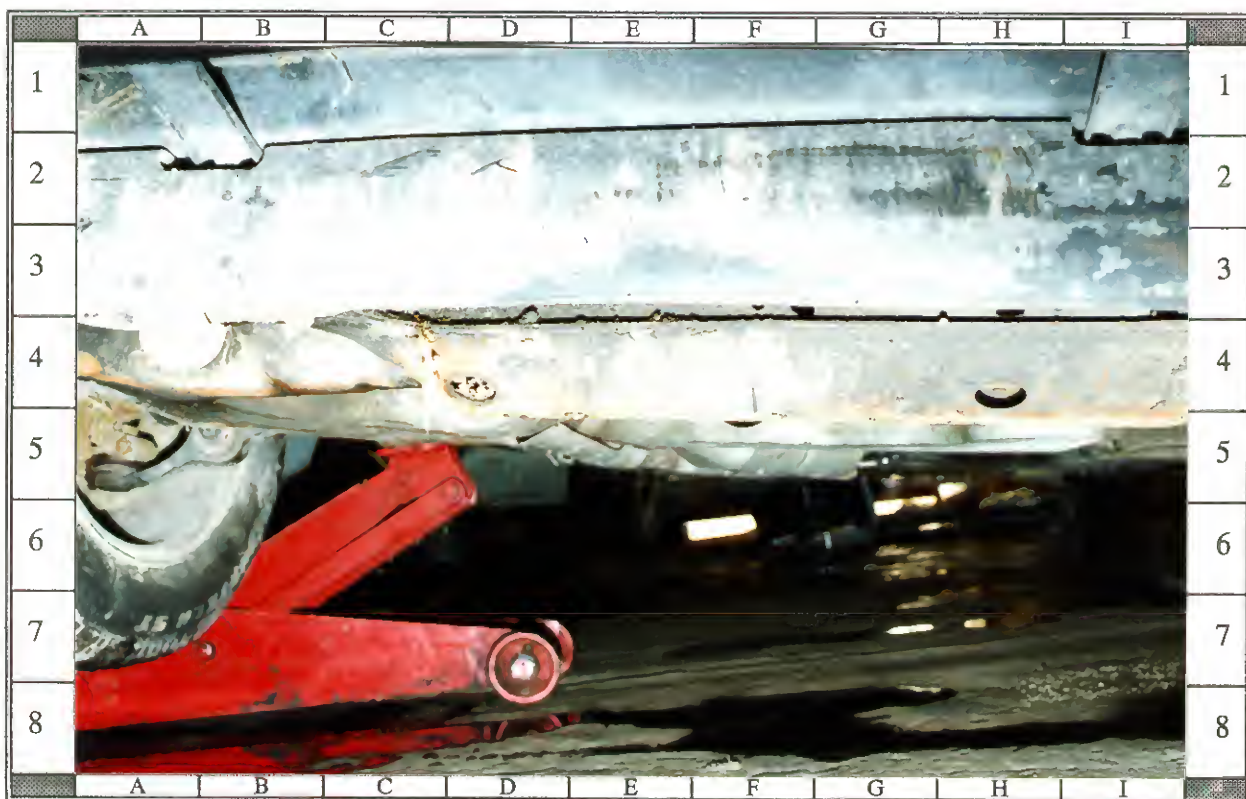
37 -- Front reference line view of '92 Ford Taurus's F bumper damage viewed from R; see scratches from bumper stroke (cells D4--E4)



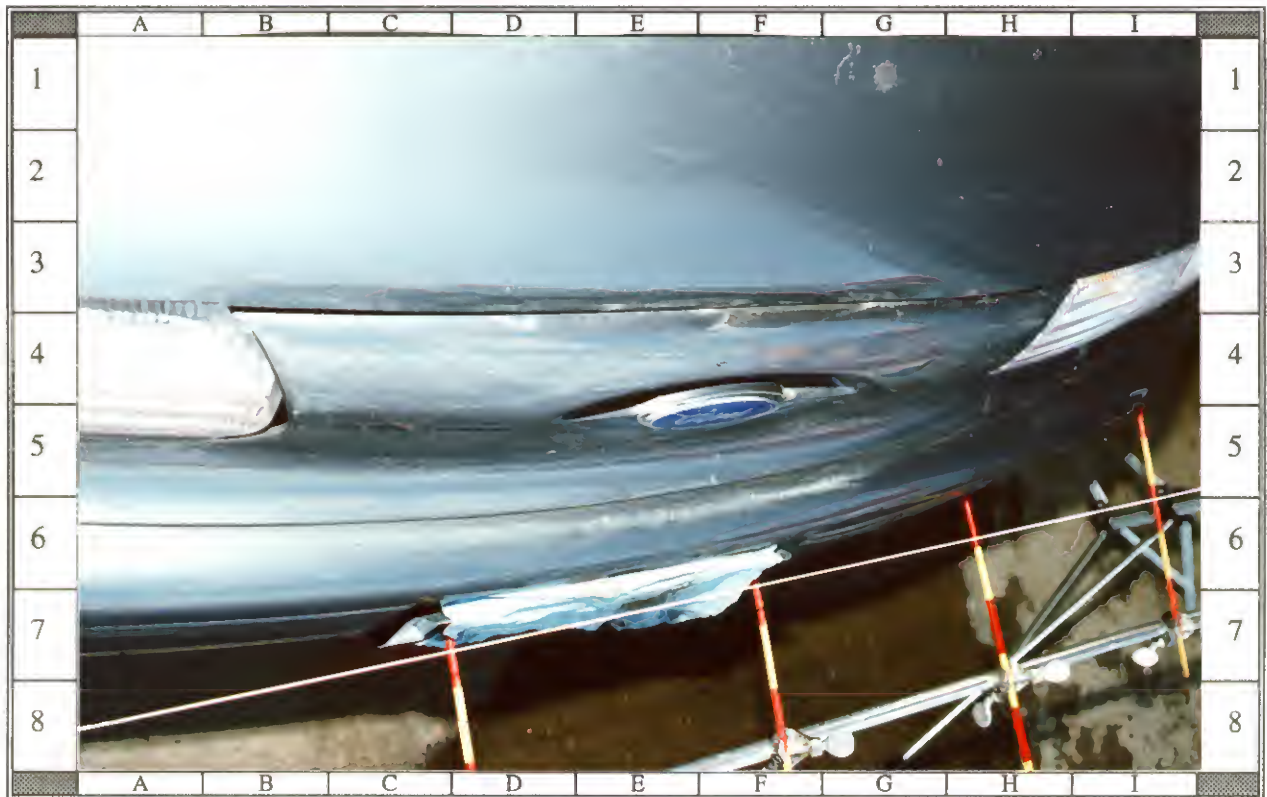
38 -- 1992 Ford Taurus's frontal damage with contour gauge present at bumper level viewed from FR; NOTE: damage to air dam on R side



39 -- Close-up of scratches on 1992 Ford Taurus's FR bumper from CW rotational impact with guardrail; NOTE: no RF headlight damage



40 -- Close-up of 1992 Ford Taurus's right undercarriage damage which deployed driver's air bag & occurred during embankment descent



41 -- Overhead view of 1992 Ford Taurus's F bumper showing scratches from EAD movement caused by guardrail impact (see cells C6--G5)



42 -- Interior view of 1992 Ford Taurus's driver door showing blood splattered on surface when air bag struck driver's bleeding face



43 -- On scene close-up of 1992 Ford Taurus's blood-splattered driver door which occurred when air bag struck driver's bleeding face



44 -- On scene view of 1992 Ford Taurus's blood-splattered driver air bag; driver was bleeding from face when air bag deployed



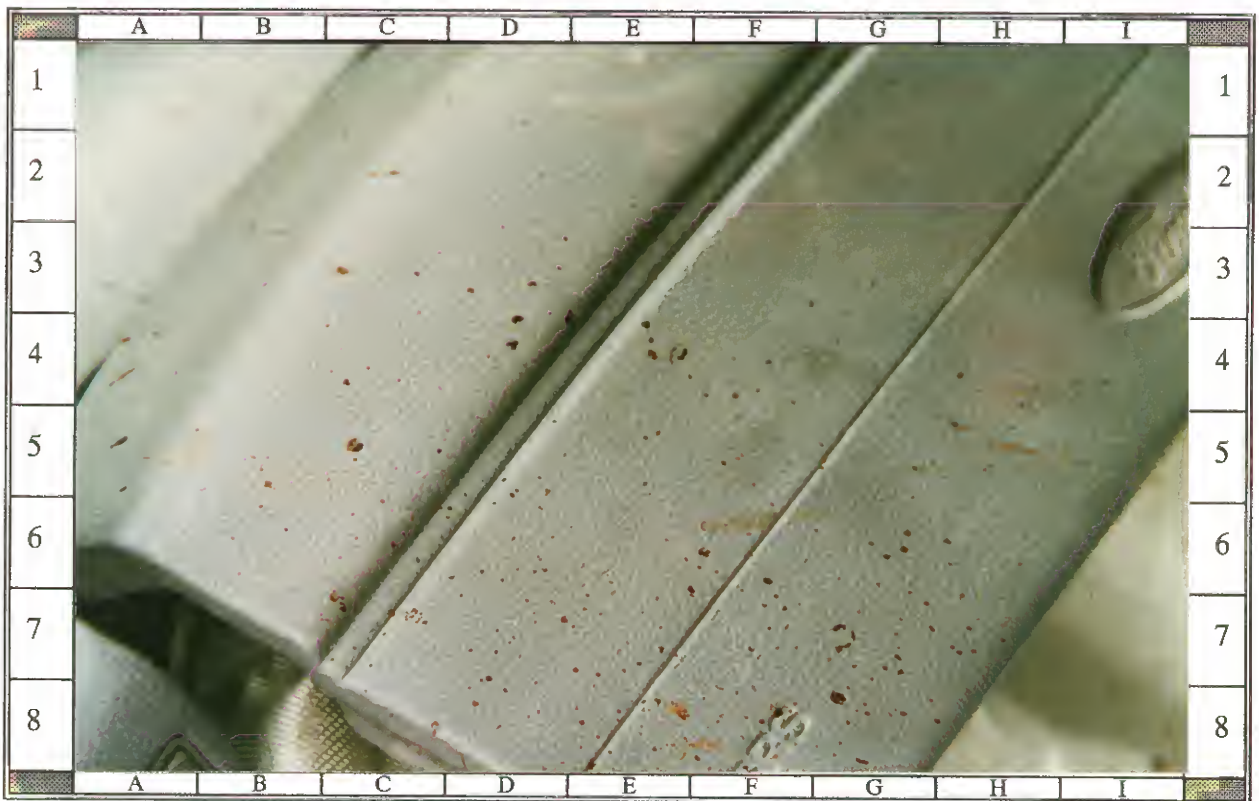
45 -- Interior view of 1992 Ford Taurus's driver area showing contacts to steering wheel and cover flap; NOTE: position of vent holes



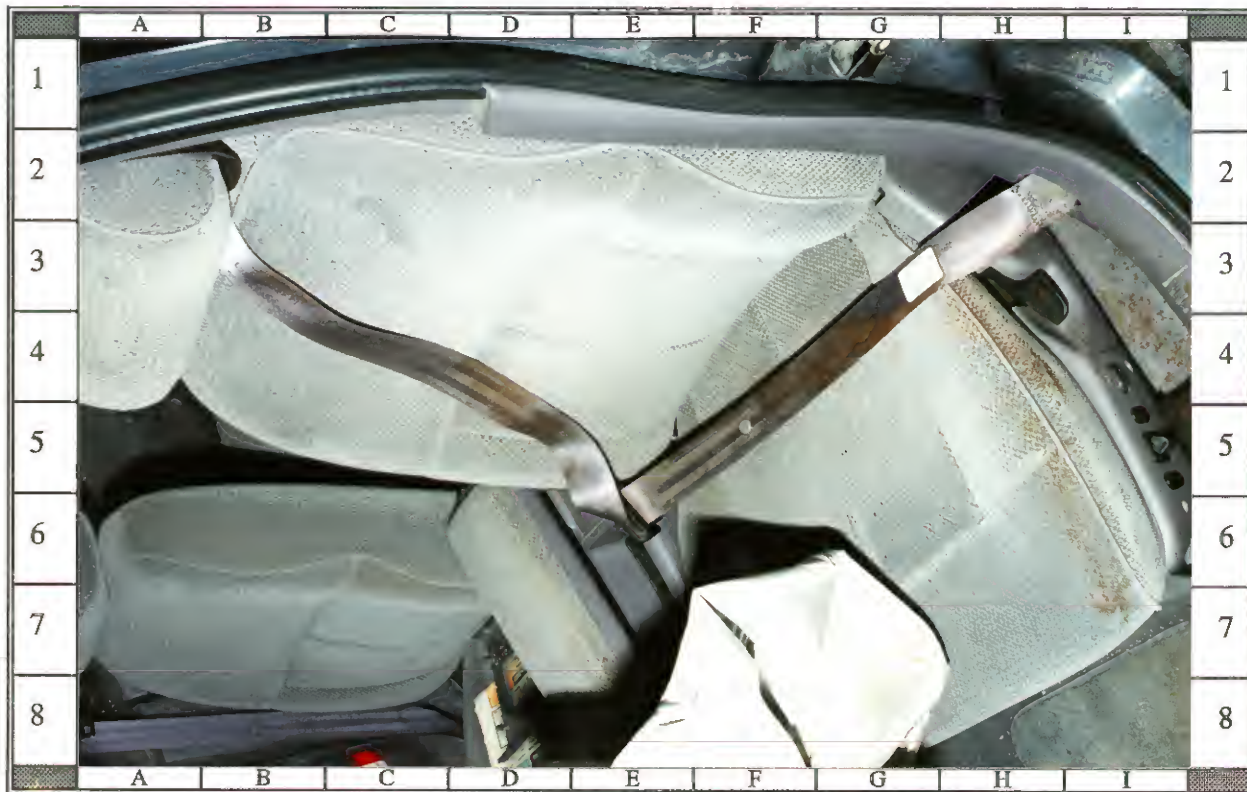
46 -- On scene close-up of 1992 Ford Taurus's blood-splattered L dash; NOTE: no contact evidence present



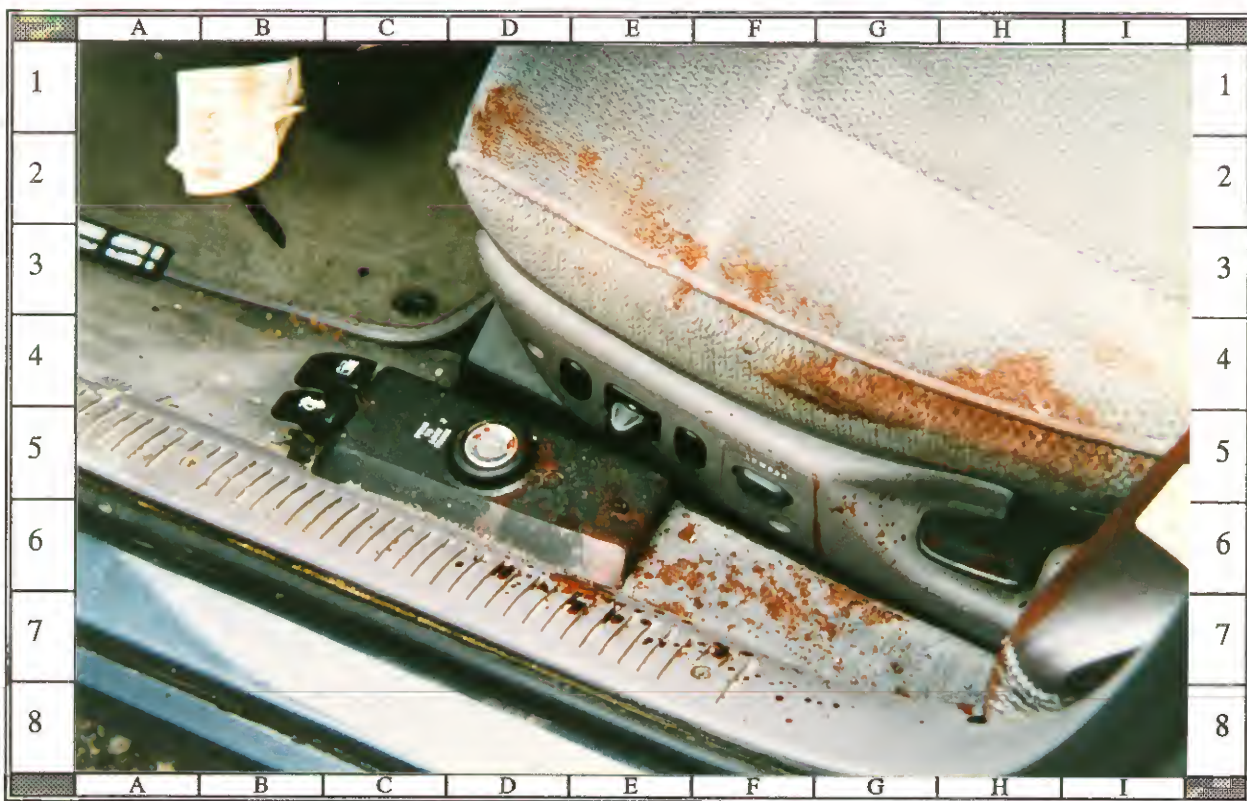
47 -- Close-up of contacts to 1992 Ford Taurus's steering wheel rim & air bag cover flap; NOTE: blood on cover flap



48 -- On scene close-up of 1992 Ford Taurus's blood-splattered cover flap; NOTE: blood indicates bag deployed after facial injury



49 -- 1992 Ford Taurus's driver seat showing restraint usage and blood present on seat, belt webbing--both chest & lap, and sill area"



50 -- On scene close-up of 1992 Ford Taurus's driver seat & left sill showing blood which drained when driver leaned against left door



51 -- Close-up of 1992 Ford Taurus's left lower dash area showing no evidence of driver contact



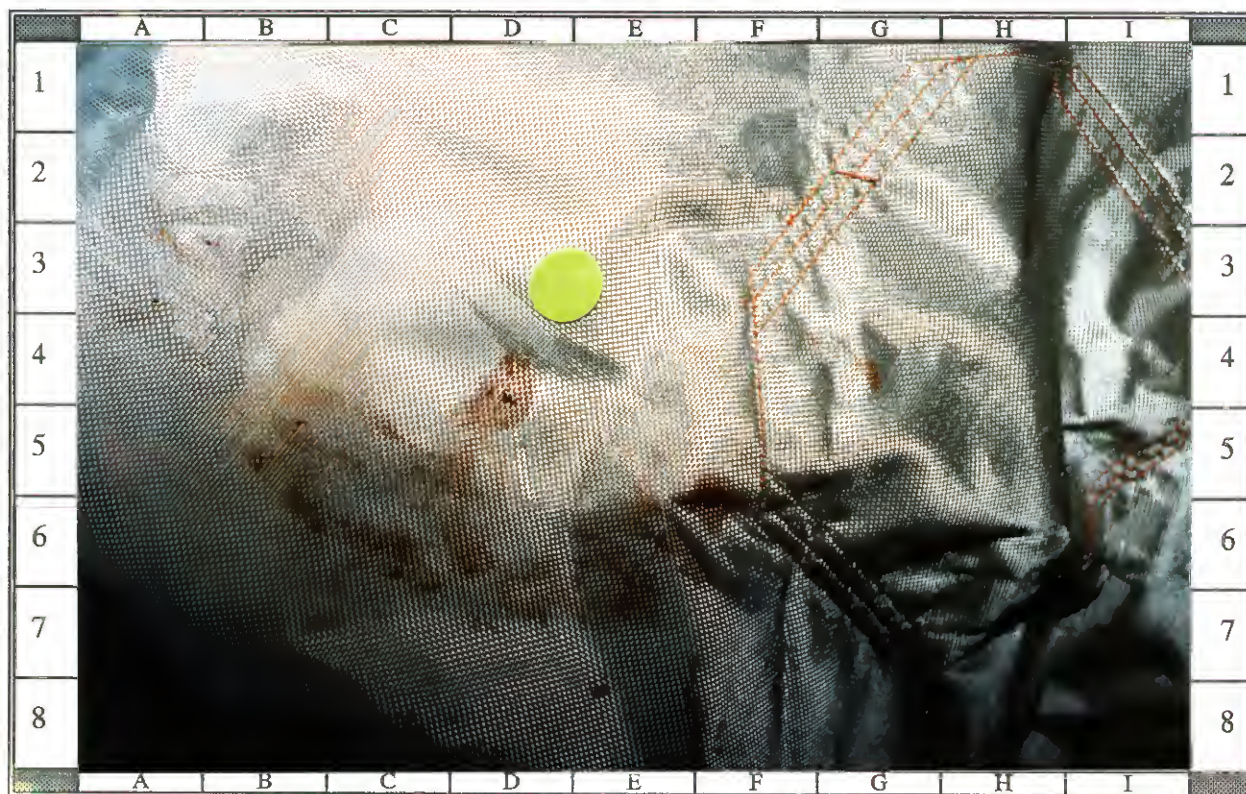
52 -- On scene close-up of 1992 Ford Taurus's blood-splattered center-mounted console showing bleeding occurred prior to deployment



53 -- Close-up of 1992 Ford Taurus's bent steering wheel rim--top of rim moved ~ 2.5 cm; NOTE: no contacts to mirror or RF sunvisor



54 -- 1992 Ford Taurus's deployed driver air bag showing blood & contact evidence; NOTE: left yellow dot marks blood & lipstick



55 -- Close-up of left side contact evidence on 1992 Ford Taurus's driver air bag showing blood & lipstick transfer (cells B4--C5)



56 -- Rear center view of 1992 Ford Taurus's driver seating area showing deployed air bag, seat, L A-pillar, L sunvisor/header area



57 -- Rear center view of '92 Ford Taurus's noncontacted rearview mirror, center dash, console, & header, and windshield



58 -- Rear center view of '92 Ford Taurus's noncontacted right dash



59 -- Front occupant seating area of 1992 Ford Taurus viewed from RF door; NOTE: no evidence of contact to windshield or dash



60 -- Rear occupant seating area of 1992 Ford Taurus viewed through RR window which was broken during extrication; NOTE: restraints